

SEQUENCE LISTING

<110> VLAAMS INTERUNIVERSITAIR INSTITUUT VOOR BIOTECHNOL

<120> Plant stress regulated genes

<130> FVB/Tab/V077

<140>

<141>

<150> 01200659.9

<151> 2001-02-23

<160> 173

<170> PatentIn Ver. 2.1

<210> 1

<211> 233

<212> DNA

<213> Nicotiana tabacum

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<220>

<221> misc_feature

<222> (68)..(68)

<223> n can be any nucleotide

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gggtttantt tggtggacat tgaagctaaa atttctcttt aacacttaat gaaatattta 120
atttagatcc aggctcacag acttgacgct gctatTTTT tactcagtaa gatcatcttt 180
atctgttagtc tgtaccaata ataaaagccc aaacccttt aaccacattc atc 233

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<211> 314

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<213> Nicotiana tabacum

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<223> plasmid a10-2-12

<220>

<221> misc_feature

<222> (141)..(188)

<223> n can be any nucleotide

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aatggaagag gtcaagaaga atgtaaatgg cttttcagag accattgagg ttttgagtca 60
gcacgccaag aaatgttaacc aggtatattag gatggcacga gcagtgatct tgcggaagat 120
tgtcagtcaa cccagtagct ngtatcaggc cattggatg ttcttgatt gacagtagnt 180
gtcttgnnga ttttctttt gtttatatac catgtatgtt tgtaaaaagt tggtccaatt 240
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314

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<222> (58)..(195)
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gacatca gttggagctc aagactttcc tcctgttca caatatgact ataaatantt 60
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atttatttgg ttgtacttgg tggcaaatta tgtgtttca agtagtaatt tgccctgtgc 180
ctctatgttt tcaantagta atttgccttc gcgagttgat tacatgagaa atcagattct 240
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<210> 5
<211> 278
<212> DNA
<213> Nicotiana tabacum

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<221> misc_feature  
<222> (64)..(186)  
<223> n can be any nucleotide
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ctacaaaaga aaggttattt atacaatatg cattgtaaaa aatcaaccgt taatacaatg 60
ggcngctaa cataataat aagatttga taacctaatg accaacaaca ctatattata 120
taatatgtgg aaaagatgca tccaaactatc acagatataa catccaaagg ctatacttaa 180
ttctnctaa ataacaaca cacacttaat ccgtcactcc tcgtgtgtac aagcaatagt 240
ccccaaattt gttgtcatcc tctaacattc aatattcc 278

<210> 6
<211> 349
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-1 ; homology with a serine
carboxypeptidase

<220>
<221> misc_feature
<222> (19)..(19)
<223> n can be any nucleotide

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gcagaaaat tttggggng gcaccatctg gtttcttca cagtagatgg tgaggagaaa 60
ggaattcaaa agagctatgg acctctgact ttcctcaaag tcccatgatg caggtcatat 120
ggtgccatg gaccaaccaa aggccact cgaaatgctc cagaggtgga ctgctcaagg 180
caaattgtcc taagaagatt atcttgctca catgtgaagc atcaatttaa gaaccacact 240
taactgaaac agatttaaca tttttccagc tttaaaattt catcaaaaca tagaaaatca 300
tgttagataca tttcacctt tcaggttacc ctgaaatctg tcaatgaaa 349

<210> 7
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<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-3

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gtggaggaaa ggttcaggga aggttgcgg agtcaatgcc gccgatgccg ggaaagttt 60
cctgagaaat gaaactgccc gaattttgac gggtggcgac atgaggaacg ttaagtcc 120
gttagagata acggagggtg acgacacgtg gtgggacgcg gacgcccgtt caatcgagga 180
gcagtttgcg ggttcaaata aaactagtca aattgaacga gtttcaactga ctcggtaat 240
gaatgtatcta aaaagggtaa aatcgtaat gacaaaggcg aatgtgaag gaacgaacac 300
tcgtccgtgt ttgtctgtaa atataattat tttcaataat tattggaaat gataattaa 360
tatttgg 367

<210> 8
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<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a14-1-4

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ggaagaagaa agagaaaagg ctgagaaaaga gaaagagaaa gagaaagaag cagctgctga 60
agaagccaag attactgata aagtgaacga aaatgagaag tcggagagta atattgtcaa 120
ggaaaatcca gaggtaatg gtgttaagga aaatggtaag tcggaaaata atttgtcaa 180
ggaaaatggt gatgttagta aagggtgatc atgaaatgat tgattaatta ggagttccac 240
ttaaaaactag gatccaataa ttttgaatag ttttgctgtg ttcacatgt tgactttgtt 300
attcaaacta ttcgatgga agtagtgat gtcgaaattt acatggta ttactacctt 360
cttgtgaaag taacatttc ataatttag 389

<210> 9
<211> 317
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a18-1-5 ; homology with EREBP-1

<220>
<221> misc_feature
<222> (9)..(309)
<223> n can be any nucleotide

<400> 9
ggacatacna nacggcggag gatgcggcgt tggcgatgtca caaggcggcg tatcgaattc 60
ggggatcgcg tgcgtgttgc aatttcccgt tgagggttaa ttccgggtgaa ccggAACCGG 120
ttccgggttgg ttcgaanagg tcgtcaattt cgccggagag ttcttcctcg tcgtcgtcgg 180
aaaatatttc gacaaagagg acgaagaagg ttgccnnct atacagctga gggttaattt 240
gggaatttca aaattgttca attccatgaa caggttgagt tcaatatttt atttcatttc 300
ctctcctcnt agaaatt 317

<210> 10
<211> 276
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a18-1-8

<220>
<221> misc_feature
<222> (166)..(263)
<223> n can be any nucleotide

<400> 10
ctgagctagg agagcacaca gggccttagt tcaagtggaa aaggtggaa gacttgtat 60
taagtacgg gttttagctt cgtgccatgc gaattaaatgt tggtattttaa gtggagtagg 120
gttagagggtt ggaccatata tccgagtttca gaatgtgcgtt gttgtnccta gacagatttc 180
tcgtcctca aaataaaata aaataaaatgt gcttgagaa taaactccat ttttgatc 240
gtacaatctt ctgcataaac atanctcaa aagtgt 276

<210> 11
<211> 293
<212> DNA

<213> Nicotiana tabacum
 <220>
 <223> plasmid a18-3-2
 <220>
 <221> misc_feature
 <222> (27)..(277)
 <223> n can be any nucleotide
 <400> 11
 gatgtacctg aagccactgc tatggantat gttggaggta ttttatcaac aattggcnaa 60
 anatgtatgc tcgattttgt attttgatc ntaaaantga taannnnngag ntgaantcga 120
 ctgtattttg caagnntagt tatatctta atcttgcattc ataaaatgca tgtgtgattg 180
 ttattttagt cgatagaaaa aagaaagacc cngtatagtt tgttgatctg tgctgcagtt 240
 tttgacagcc aatgctgttt tttaggttac aatatgnagt tgattttcta ttg 293

<210> 12
 <211> 290
 <212> DNA
 <213> Nicotiana tabacum
 <220>
 <223> plasmid a18-3-3 ; homology with EIF-5A (initiation factor 5A2)

<400> 12
 taaaagggtgg atttgaggaa ggaaaggatc ttgtgttgtc tgtgatgtct gcaatgggtg 60
 aagagcagat tgccgctgtt aaggacattt gtaccaagaa ctagtcgcgc attctgcagc 120
 ataaaataatt tgcttttagcc aagacatttt atatcttaat cgtggtactt tgatatccgt 180
 tgattatgaa ctcgacttat atcctattgg catggcttga atagttgaac tttatggttt 240
 gtctggtaag acagaactgg atttgatagc agaagtgatt tataatgaatg 290

<210> 13
 <211> 260
 <212> DNA
 <213> Nicotiana tabacum
 <220>
 <223> plasmid a18-4-6

<220>
 <221> misc_feature
 <222> (36)..(172)
 <223> n can be any nucleotide

<400> 13
 tggatgtatggc tgggttcaact ccatccccaa ttagtngnaa cgtntatgan tngatccaga 60
 attttatcaa gcnatatagt gnaaggnaca aagccaaggg gggggcaggt gcaatncatt 120
 ttgggtgggg aganaagagn ntgattgttg ctttagctt ggaatagtta cnaagtatgg 180
 ttttctcata taaaccacca atgtgcacatcg aatcaacttg tattgacatc tgactttgtg 240
 ataataattca gtgtttatga 260

<210> 14

<211> 269
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-1

<220>
<221> misc_feature
<222> (222)..(267)
<223> n can be any nucleotide

<400> 14
cgtgatagtt ttttcgcgac ttgatttagaa gcaaatacgc aatagataaag ggacttgtat 60
aaaagatagg tagcaaaata tactgtcctc ttctgtcctct gcctttttt tcttttaac 120
tttgattttt cagccatctc tggtaaaagt tctgatttct ctgggctcag ttttgttaat 180
caatataaaat caatataaaa acagcttgct tttctatgtt tnggttgatt tagatatgca 240
aatncttggt agagctgttt ctcttncc 269

<210> 15
<211> 268
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-3

<400> 15
gagtaaaatt catatttgat aattatacaa ggaaattaca ttcttaaaga agtgattttg 60
atttgagttc caagatttg tgaagttact aaacagattt tgagttccta acttgtgcgc 120
aatgctggat aactcagcca tttaatatt ctagtactcc attaatttat tgtttcttaa 180
cctatgtgta tgttttcct gccgcagcaa cttagttga tttcagagta ttcgtttga 240
tttgctcgaa aattgaaaag gacttgcc 268

<210> 16
<211> 269
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-4

<220>
<221> misc_feature
<222> (72)..(177)
<223> n can be any nucleotide

<400> 16
caaggcagag agacttgaat aaaggggatc atgaggattg aaccttacac ggtaagatgt 60
aaaataacag tnctatcagc gaattactat tcaatcctca aaatgataaag ttgtncaaat 120
aaatggggat tataagatnc cttttatctt tgcggaaggg ggtgattttg tatnctnggg 180
atgtgttaact gttgaataaa atgtgtgaa atccattgtt cataatgtac gaaatttcaa 240
aactattata tatgcgggac tttaattta 269

<210> 17
<211> 265
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a19-3-9

<220>
<221> misc_feature
<222> (91)..(22)
<223> n can be any nucleotide

<400> 17
aataaaactat gaagtcgaga tatgaatcaa actgaaacct caagtaaaaa tggactcaaa 60
actcagacgc attactaaat ggcgaagtac ntngtgcg caaacaatac aaacaaaacc 120
tattgttaca cccattcgac aaatatttca accaaaaaac agaacgtgac cttaaaagtg 180
agacaacttc tgtaaacgtc cacacgcctc aatgatagan taataaagcc aaccaattcc 240
cagttcccat aaccccaacc caacc 265

<210> 18
<211> 359
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a20-1-3

<400> 18
ggaataaaaga ttaacataaa tgtgatcccc gaaaggtaaa tacaaggatg ccaatctcta 60
ctaacatgaa atctctaatt tctatttctc atgtccaacc tcgtaaagca tgaagtccaa 120
ataaggcaag gcaaacattt cattcataga aacatgcaga aaagaattt tccagagtaa 180
taaaaaactat taacctaaaa cgtcataaca aaatgagcct ggaataatac cctacagcag 240
taaaaacttaa cgtnaaaaaa cacaacacat aaaactcaac cacatcttg tctgctgg 300
gagtaaagta aaaacaaaaa aactaaaagg gggggttgag ttaagggtc tcatcatta 359

<210> 19
<211> 399
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a3-2-2 ; homology with L12 (60S) ribosomal protein

<220>
<221> misc_feature
<222> (242)..(242)
<223> n can be any nucleotide

<400> 19
aagaagacca aaaacattaa gcataacggt aacatctcg tcgatgacgt catcgagatc 60
gctaaaggta tgaagccaag atcgatggcg aaggatttga gtggAACAGT gaaggagatt 120
ttgggcacgt gtgtatcgt tggttgtacg gttagatggga aggatcctaa ggattgcag 180
caagagatgttga tgcgagatt cctctcgatt gaatgcgaat tatcaactga 240

tngtaatatt atgttaattt tatgttattt tgtttgagg atgtcatctt gaggatcatt 300
ttgatataac tatgacattc tggaaattta tatttggaaa tgtagttgg atttgcttt 360
tctcgatgaa gtgcatttagc attgcattat gcgtttgc 399

<210> 20
<211> 287
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a8-1-1

<400> 20
gtgcaatttg cagtcaactgg cgccagatcgc agagaacttg gctaaaagaa agagtaaatt 60
aacaactact cgtgactaat tctgtgttt tttaattttt gtacatttc tctctttaa 120
tttaggttgt ttgttgttt gagctgttag tttgaatga tggatagagt atttgttatt 180
atgttagatt atgaagaccc agaactgaaa cttcatagat tggtagattt cgatgactgt 240
aagggttgtt cttgaaattt ttacaacgtg actgtttgat aattctg 287

<210> 21
<211> 284
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a8-1-2 ; homology with
(chlorophyl)-geranyl-geranyl reductase

<400> 21
cagatgagta tgtgcagaag atgacattt acagctattt gtacaagaaa gtggcaccag 60
gaaaccccat tgaagacttg aagcttgctg tgaataccat tggaaagtttg gtgagagcta 120
atgcactaag aaggaaatg gacaaactca gagtataaga ggattaataag cattaatatt 180
tttcttgtaa ctgaagagtt tatttctcaa attactctgt aaacacctt catccttcct 240
tcaataggat ttatgttaact tcatgatttg agttacattt cttc 284

<210> 22
<211> 287
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a8-1-4 ; homology with an early wound
inducive gene

<400> 22
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gcttactcaa ctgcggcca aacgaaactg gatataacag gtgtgcttta gagttgtctg 120
agcaaaggac tactgtgtat atagggagtt attcatcgga gccaatgtgg tcagcatcgt 180
caaagatcaa ttgtagctct ccgttaatat gtaaaaataac ttgtgaatat ctgtatagat 240
tctaattgtca atgtaaaaca aacaggtaaa cttatggttc ttggaca 287

<210> 23
<211> 344

<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-1-2 ; homology with epoxide hydrolase [I]

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aggcagtcattttgtacaag aacgtttcc tgaacaggc aatcagttga ttatcacctt 120
cctcaaaaag ctcataataat aaactgcctt ccagcgacgt tgaataaagg gcaacccagt 180
gcacgaaact cccgttatgc acaagggttgg gagggagccg gcatttggtt cttattttc 240
agagttgaat gttgatctca gtttatcaa acaataccat atcacattt cggcatattt 300
ctacttgtat gttgatcaat aaaagggacg atggtttacg cgcc 344

<210> 24
<211> 255
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-3-4 ; homology with ISI10a glucosyl transferase [I]

<400> 24
aagagagtaa tggtgagtga agaagcagag ggattcagaa acagagctaa agcgtaataag 60
gagatggcaa gaaaagctat tgaaggagga ggatcatctt acactggatt gactacttg 120
ttggaagata ttagtacata tagttttact ggtcattaag ttatgattaa aaaaaaagta 180
gttcttagta tgatttctat actgttttg tgcttttct gtatgtact gtgctaattt 240
aacatttcc ttttg 255

<210> 25
<211> 216
<212> DNA
<213> Nicotiana tabacum

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<223> plasmid a9-4-1

<220>
<221> misc_feature
<222> (26)..(171)
<223> n can be any nucleotide

<400> 25
cattaaacaa gaatttagcgg tggganttg gcaagaaaat tagaatttgg tctaccgtgt 60
gtgcctttta gcctattgaa aatcgattt cattttgctc taggcttataat ctgttttt 120
agcttgcctcc tattgggttt tattttttat tatgtttat gtattaaagg naggattcag 180
agaataaata catattgttt atttcttagtt ttgtca 216

<210> 26
<211> 212
<212> DNA
<213> Nicotiana tabacum

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<220>
<223> plasmid a9-5-9

<220>
<221> misc_feature
<222> (62)..(62)
<223> n can be any nucleotide

<400> 26
ataagaagaa aattacctct acaatcttta cttagaattt tggatgtaga gcaaggatgc 60
anagaccgaa gctaataatga atttataaat atggattgtt gatctataat aagatataag 120
tttcgatact ttctgatatt ttgctataga atttggagat gaatggatc tccagaactc 180
tcattcattt gtaaaaagtt tttgattttt gg 212

<210> 27
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<212> DNA
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<223> plasmid a9-6-11

<220>
<221> misc_feature
<222> (73)..(73)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (144)..(144)
<223> n can be any nucleotide

<400> 27
taagcagtga cggagatacc ctttacagag agtgtgtggg tgtcatctaa ctagctgctt 60
cataaaaacat ctnccctgtg tatatatctt tattttaaattt attttatatg tatatataga 120
taatagctat ttatcataat atantttaaa tattgatttg agacaagaaaa taaaatctca 180
aaaccaacat attcttcc 199

<210> 28
<211> 178
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-1

<220>
<221> misc_feature
<222> (26)..(152)
<223> n can be any nucleotide

<400> 28
gaaatgagag attgaatttc aatgantgca tttcaggaag agtactctgt gatgttcaaa 60
gtttcagtg aattatcgta gtgtattnct agtggtggtt ggtncattac ctttccaaa 120

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taagacattt attgtttgac atnccaattt anaaatgtca ttttgtatcg ttctcttg 178

<210> 29
<211> 196
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-10 ; homology with LOX1
(lipoxigenase) [I]

<220>
<221> misc_feature
<222> (36)..(36)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (188)..(188)
<223> n can be any nucleotide

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tagaactttt attcaatata aaagtattaa atccangtgt tgttattgtt tctttatatt 60
cctaataata atagaaaata aaattttta ttttatttc aaggagttc cagctacagc 120
taaaggangt aatgctgttag gctcttctgt tctgttaagta attcatttgt atcaacaagt 180
gcccagttt aaatttg 196

<210> 30
<211> 197
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-11

<400> 30
gaagacaaga aaaactata gacattacgt aaatattgaa tatagataga cttatgcgat 60
tgcgtatgtaa gaaaccttta gaagacattt gcaactcca gcttctctaa cttgttaagaa 120
atgatcaaga gtgaacctgg cacagtcgat ccgcaattt tgctgttt gtctcaatt 180
taacactacg ctccac 197

<210> 31
<211> 340
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-1-3

<400> 31
aatcattaag gtttaaaaga aaagataaca cgtaaaaacg catcctttt acctttagt 60
tcaaatttca aatgtatgtat tacggagaaa ccgaatttgc aaactccata actctgctgc 120
tggatttctc gtctcagaga gggagagacg cacaacgaac ataaaaatag cgggagaagc 180
tcggaaaaat atgtttcat atatttatat aatttgaagt gaatttggat tggaaaat 240

ttaactccct ctgtggattg ttattgaaga tataattttt tttcaatgtt cgtttctgt 300
ttcgattatt gaaagatgc aacagaaaga ttgtggctta 340

<210> 32
<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-1-5

<400> 32
tgtatgatcg aggtgttaagc cctttcctg ctgccaatgc agtagttggc ctgaggagtt 60
gacaattgtat gacagggttt gacagtgtat gatTTTCTT CCTACTAGAT TAAAGTCTAC 120
cttcactcat gtacatgata agcatttgta cagaacagtt atggTTCTGT TTATAAAAAA 180
agatttaggtt gtcttgactt gcatttctgt gtattttgaa agtgcagact cgctctttaa 240
cttctatgcg tggtggcttc ttgggccttc tccttcttgc tcgtgattgc ttcttataaa 300
attnaagtaa aaatacatag cctggcattt ttcttg 336

<210> 33
<211> 400
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-2-2

<220>
<221> misc_feature
<222> (9)..(86)
<223> n can be any nucleotide

<400> 33
agctacgann tgnctcnagg gcnnngaant gcgnncngng antnatngca ncnnngannt 60
antgttnnan ctggaacnga ntccangcaa cctgtttctg tggattcttc cacgtacctt 120
tggcttggtt atacatgttag atcgtattgc cgtcaacact taataacttg tacacgaaac 180
agcttctgtt ttgaagtctt tcccagtcaa tggtcgatag cattaatcgg ctgagatgga 240
gcttagatcc caagagtgc tgccttttag acggttgac ctaatcgtgt gtttgactc 300
tattatgata ccttcatctg ctgcactaaag aaattgacaa gtgcggtgaa tttcttacat 360
gagggaaattt caactggaat gccttagtat tattgtgtt 400

<210> 34
<211> 330
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c1-3-12

<400> 34
ggaatggatg atctgaaagc atcttaagtc taaaggaagt ttgcaactca gttgagattc 60
atccacactg agagaaacctt ctgaaacaac catacttctg ctttatcctg ttgtaccatgt 120
aatagctgtt gcagcagaca atgagctttt tttaaagaca ttgggttgtt aactaaaaac 180
ggaaggaact ggattgaggc aataagtgtat tctggagaat agtgtttga ctcaaataatt 240

taatttcatt ttccagatca tgatcacctc ttgtgatttt acatgtttaa ggacttcaag 300
tgaatgtatt gtcagtaag ttttattacc 330

<210> 35
<211> 334
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c10-3-1

<400> 35
gagtaggatg ctggggat ggtttctgt tttacagaat ccttacaga tctggattc 60
aagaagacca tggatgg taggatgtct tgagatgaag catgaattat cttacgccgg 120
aaattttaaacttttgc cattttcat ttacagctca acagttata tcgatttagta 180
gatggatgc ttcccttattc catattctaa tcctccaac acattatcct agtctgtcta 240
gtattccctt tactgcattt gcacttgcattt gagctataat tgtactggc ccaagcttca 300
aaagaatgtatgaaatgagc cattcactcg ttga 334

<210> 36
<211> 334
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c10-3-5

<220>
<221> misc_feature
<222> (2)..(111)
<223> n can be any nucleotide

<400> 36
gnanagagng naantttggg ngganagntg ctgttgcnaa nccctanttt cncccnngcca 60
antgngggaaa ggaattaata aaanaagttt ggattatnga acgtnggaag naacaaaatt 120
agtaattctt attactagtt attttcattt gttaacacca ataataacta atttgcttgc 180
ttggcttcat atctggatgc tcgcttgcgt agcttattat tgtcattttt tgtatgaata 240
aaccaaggcg acggcaact cttgactctt gtaaaaaagta gacggtttct cagtgtagaa 300
gtcggagtag taccatttcctt gaaatcttgc 334

<210> 37
<211> 216
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-2-1

<400> 37
aatatgaagg gggtaaatc cgtaaatata attaactaat caaatatcga ttacaaaatt 60
gtaagataat tgattgaaga atatccttct tttgtacata attatttca agattatata 120
aaatgaaaat tgatgttga tcgagatgac tttccattat ttaagttgaa aatggagagt 180
ggttgttca atataagtat ttatcttgc 216

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<210> 38
<211> 179
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-1

<400> 38
aagtgttaag taaaggtttc cattgcttat ccccggtata tttaccttat catttctgg 60
ttggacatta ccgtatagc tagaagataa tcatgttgac tgagaaatct tatttctatg 120
actgtaaaat ttgttaaaaa tgagaacgag ataagatttc ctattccgaa gcacatact 179

<210> 39
<211> 182
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-3 ; homology with caffeoyl-CoA
O-methyltransferase 3' [I]

<400> 39
ggaggataaa atatcatctt gtaaataaac tttactcaag ccgaatgaga caaattttaa 60
gtatttgtta caatttcaga agtacaatat ttgaaataca aatatataga aatattaata 120
gcgataatag tcatacgata caaaatattt attcacaaat caaaagaaaa acaaaggtag 180
tt 182

<210> 40
<211> 441
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-1-6

<220>
<221> misc_feature
<222> (242)..(242)
<223> n can be any nucleotide

<400> 40
catcgatgg aggacaaggc aagtgaaggg gacagcaaga aacctcagag cagctcgaat 60
agacagactc ccacttcaaa tccatttcca gcttottcgc aatctcctcc aattgccaaa 120
tccacaagta ataaaagcaa aagcccgctg cctccatctt tgccattgtat atcagattca 180
acgtcgatcat cgatcgaaatc tcctccata gttgcataat ccacaagtaa taaagttaca 240
anaccgcaac ctccatcttc gttgatataca gaatcaaatt catcttagaa ttctgtatgc 300
agaatggcccg tgctttatattt gattcaccag tgatttttt gctcgatgt acaaaatact 360
agtaattaac taccactcga gaagccttgc aaattttgtt tacacgaatg cattcaatga 420
actggatcg accttcttg t 441

<210> 41
<211> 340

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<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-2-1 ; homology with L19 ribosomal protein

<400> 41
agggaccagg agagaggcca gttcaacctg cagctccggc tggcgccca ccagccaaac 60
cagctcaggc atctaagaag tcaaagaagt gagcatgatg aattgttaagg agggtgccaa 120
gcctgcgttt tggtcttgct agtataacag tttagcatgt ttgatctgtt cccttattgg 180
tcctttaact ttggaagaca acgttacctg tacgaatttg gaagctgggt taaagtttg 240
ataccttgtt tctcagtgtat acctttact catgtttga ttatataattc aacttagttg 300
tttgcgtcg catggaatgt agtgagtgag cagctatttg 340

<210> 42
<211> 184
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-3-13 ; homology with 23S 4.5S rRNA genes (chl)

<400> 42
ccagagacga ggaaggcggt agtaatcgac gaaatgcttc ggggagttga aaataagcat 60
agatccggag attcccaaat agggcaacct ttgcactgc tgctgaatcc atggacaagt 120
aatgagacaa ccatcttgct gtatattata aagcataagt aataatccat tcttatagtg 180
attt 184

<210> 43
<211> 186
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-3-6

<400> 43
gaagacaata caacattaat caccttgcc tctgcgactt agagacaatt gaactactgc 60
atttgcttg atttctatg ttgtatctt agtataataa cgtcgtgagt gagtttatat 120
ttgcaaagga tatccagtcc aatccatgct tgggttaaat gtatattgc caaaaacttt 180
ctattc 186

<210> 44
<211> 549
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-1-60 ; homology with a glycolate oxidase

<400> 44

ccttcaacaa ttcatggctc ttgaagaggt tgtgaaagct gcacaaggcc ggatccctgt 60
attcttggat ggaggtgtcc gccgtggAAC tgatgtcttc aaagcttgg cacttggAGC 120
ttcaggcatt ttatTTGGAA ggCCAGTAGT tttctcATTG gCTGCTGAAG gagaAGCTGG 180
aatcaaaaaa gtGTTGCAAA tGTTGCGCGA tgAGTTGAG ctaACTATGG cATTGAGCGG 240
ttGCCGCTCA ctGAACGAGA TAACCCGCAA CCAATTGTC ACTGAATGGG ATGCTCCACG 300
tgCTGCTCTT CCAGCCCCAA GTTGTGAAA ATGTAACCTCA AGTGTCAAT TGTGTTGATCA 360
aAGCAAAGTA ttGCTCAct GTTCAAGAG CTTATTTT GGTGTTGAAT ACTGTTCT 420
gtttaatgag ttacGATAA tGTTAAGCTT ttCTCAGTAA tGAAAAGACTG atAAATTCTG 480
ataAAATGGCC agatATGCCT ccATTGTAc ATCCTCTATT TCTATATATC ATCATATTGT 540
gaACTTTc 549

<210> 45
<211> 49
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-10

<400> 45
attgctatac ttttccaagt ttgataatat gaaaagacat ttctgtttg 49

<210> 46
<211> 553
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-15 ; homology with L35 (60S)
ribosomal protein

<400> 46
ggggaaaatc aaagactgag cttttggctc agttaaagga tctgaaagca caacttgctc 60
tcctccgtgt tgctaaggTC actggcggtg ccctaACAAA ctctccAAAAA ttaagggtgt 120
gaggttgtca atagcacaag tattgacagt gatATCACAG aAGCAGAAAGA cAGCATTGAG 180
aaaAGCTTAT aagaACAAGA agtacttgcc tcttgacctc cgtcccAAGA agactAGGGC 240
cattcgtaaa cgtcttacca aacatcaggc atctttgaag actgaaAGGG agaAGAAAGAA 300
agagatgtac ttTCCAATTt gaaaAGTATgc cattaAGGTT tgaATTGATC caacttagat 360
agTTTGTGAT gttAGAGCAA agtGTGAGGAT cattatTTTt gCcATTtTGC aATGTTATAT 420
tttGTTattAC tactatttGC catttatGAA gttGGAGTTT tGTTATTtG tttGcTTAT 480
gcgtGCAACT tttatGcatG atcctgtcta cacttCTTT tctacacttG tgatcgAGtG 540
tcgtgattat tgt 553

<210> 47
<211> 311
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-3-4 ; homology with L25 (60S)
ribosomal protein

<220>
<221> misc_feature

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<222>  (49)..(49)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (159)..(159)
<223> n can be any nucleotide

<400> 47
taaaaggaag attaaggatg ccgtgaagaa gatgtatgac atccagacna agaaaagtcaa 60
taccttgatt aggctgtatg ggactaagaa agcatatgtg aggttgactc ctgactacga 120
tgcattggac gttgccaaca aaatttggaat catctaaant agtagttacc tgtttagaat 180
tttacgagaa tttaaaatct tggattgagt ttttagatac acttgaatgg aagtgccttc 240
tatTTTcat tttgaatttt gtgttttggaa gacatgtttt gttccgtata agagaaatca 300
acttttatgc t 311

<210> 48
<211> 272
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-5-1 ; rice genomic homology

<400> 48
actgggatag tcaaatttatt gatcatgaag atgggccact cgaaagggag aagcttctgt 60
ttgcagtgaa atcatattgg acagcgccag ctgctcaagg atcttaaact acttaatccc 120
actgtttta atctttctta cttcaaagtc taatcatatt gctaattcctc tcttttattc 180
tttcacatgt taagttcttag tattacttgc aaattgtaaa ctctaggatt ttaatgattc 240
ttcagcaact acactgaagt aatgagttct gt 272

<210> 49
<211> 270
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-6-11 ; Arabidopsis genomic homology

<400> 49
ggaagattat gctggcgatc gccgatggac ttggatcatc gccgattcaa atggttcttg 60
atgatagtga ccagaatatg atcaaacaag ctgcccgtatc cgaagcttct aagcgtcctg 120
cctaattaat tataactggt ttccagttct ctagcaaaat aagtcccttt tttattgttt 180
caatTTTcag tcatgtcttg ttccatgct gtgttctcaa ttctgttaatt ttacatactt 240
atatacaaat gaaatgttagg acaactttat 270

<210> 50
<211> 193
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-7-4

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<220>
<221> misc_feature
<222> (18)..(19)
<223> n can be any nucleotide

<400> 50
tcaccaaatt ggcttgnna cttataatta ttgttagcat ataaaagaat aactattgtc 60
atattacatt tttccctaatt gttcaatgcc tttttagttt tcaacaaatt caatgtttt 120
tggttcactt gtttgagaa tgattgcaaa atcatcaatg taatgcagtc tatatttcaa 180
cgaaattcat tga 193

<210> 51
<211> 203
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-2

<400> 51
aagaaatcct gaataaacatt tcatttggga ggaggattata tatagttaat ggatttgggg 60
ttttttgcc agtaaaattt gttcaacat ttaatagaac tctgctgtt aagggtttt 120
tttttatatg attagttact gtatttgtat tcaacagaca atattaattt aaatcaaatt 180
tctgcgtaga ccaacttctc ttt 203

<210> 52
<211> 492
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-4 ; homology with CBP20 (pathogen
and wound-inducible antifungal protein) [I]

<220>
<221> misc_feature
<222> (402)..(461)
<223> n can be any nucleotide

<400> 52
ggacctcggt gccgaaactc ttgtggcaaa tgcttaaggg tgacaaatac aggcacagga 60
gctcagacca cagtgagaat cgtggatcaa tgcagcaatg gcggactaga cttggacgtt 120
aacgtttcc ggcagctcga cacagacgga agagggaaatc aacgtggcca ctttattgtt 180
aactacgagt ttgttaattt tggtgacaat atgaatgttc tggtatcccc agttgacaag 240
gaataagaag ctatatatgg ccatgttttag tctttgacgg cccaaataaa agaaaaaaga 300
acgatatgtt aaagaaaaaa gaaaataaaag ttgctttgat ggggttaggc aattccaata 360
tctattcaag aatgtcttc gttttgggaa gaaagagtga antgtgtatt atctttgtga 420
tttgttatgc naatattgtt atttttaaac aaanaatcnc ntgggacagt atttgttgg 480
ctcctttga ac 492

<210> 53
<211> 201
<212> DNA
<213> Nicotiana tabacum

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<220>
<223> plasmid c15-11-2

<400> 53
ggatcatgag gtctatcgag tgaaggcaca tgcgatggcg agcaaaaaaa agctttgcc 60
catgtctaga acacaatgcg gatacattt atggcccatc taaaaggaac tatactgcat 120
ccaagctgtt aatggccata atatttcca atatcatgac atttctcac tgttattgga 180
taaacaagct tgagatctac t 201

<210> 54
<211> 199
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-11-4 ; Arabidopsis genomic homology

<400> 54
agttgtacac caaacttatac cataagtttg aaaccatttt atttccagtt tacatgtact 60
aaattatcggt tagatttgct tatatgtatt gtacagtagt tctaattggaa aggttgatgt 120
caatatctcc agagaggaca gaatgacgaa caaactgttagt gtgcgagaat attgcttcta 180
aacacataaag tttcccggtt 199

<210> 55
<211> 431
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-2-8 ; Arabidopsis genomic homology

<400> 55
gtcgcacaaaa ggcttccgtg gatacaatac catgaagtac ccaatgttgg acatttgctt 60
attcatgatc gagccgtgaa ggaggttatac tgaaagacat tcttggccgg agagaaagag 120
cagatagtgt attcttaaac gggagaagg agattttagag gttcccttgtt aagaagacac 180
attctgtgtc ttttactggt atatcctatt gcatacatat taatcatata taaagttcgt 240
gagctagtag ctcaagttttt ggaacttcgg tggataatgg tttgcccctc taccctaact 300
gagaatcct ggggagacgc aagtttcgaa actcgatgga taatggattt gaccttctac 360
ccttctttaa gacggttttt tggtacttga atgtgcattt cggttaaaa cgtttttaggt 420
gtggccttgtt g 431

<210> 56
<211> 446
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-3-4 ; Arabidopsis genomic homology

<220>
<221> misc_feature
<222> (33)..(33)
<223> n can be any nucleotide

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<220>
<221> misc_feature
<222> (61)..(61)
<223> n can be any nucleotide

<400> 56
aagaggaaca agtcatattg atcgctagat ttngcattta ccgtgtggat aaaatcctgt 60
ngaggtataa tttcacttgg gacgatgtac tgaatttcag gctctactt gcaagtagtc 120
ttaatatccccc tcatagaaca ttgcctcgaa tcttcactga tgtgtttaat gaatttgctc 180
agatgagtca gagagtttagc gtaaaatgccg agcctatctt aaatatcggtt ccagtcttgg 240
gtgctggag gtcttatcg accttggatg atatattcac gtgtgaattc atcgcttagga 300
aatgttagat ctcatttaaa ttagggatt atatattaaa tggtgagaaa aagagagttt 360
tgaactgaa caaattctta taatgttatt gccAACCCAA ttgttgcaaa ttacacttag 420
cttacagga aatgaatata tgaagt 446

<210> 57
<211> 247
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-6-2

<400> 57
gaaccaagta aaaggcctga aatggaaagg aaaacaagca atcacaacta gacaacttca 60
acatagaagt gctttactac agtatttaag gacaaaatca cccaaagcta atgaaaaaac 120
tggaggtgtt tgagcttcaa cactactcta ttggaaactg ttgtatgccg atactatgat 180
tgtgtttgg ataataatttt tgtgtgcaa gttatgtatgt aatatgtatgt aaactattaa 240
agcgtgt 247

<210> 58
<211> 325
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-6-3

<400> 58
accgatcaag tacctaatta gagttccaaa tgctgcttag gctttggtcc aacaaggct 60
tgggttcca ggcatttaac tcctttttgt ggatatcgat tctttatccg cctgtgagt 120
gatgcttctg ttttgccat cttctggaaa gtttagttga ctgtaaaaac agctaaactg 180
taaactaaat tagcagagga aatctgccgc cagatatttc aacatgcaag gatataatac 240
ttgtcgagaa taaaatttc agcttctatg gcctttctg tgatactttc aggaaaacat 300
tctatcagaa aatacatacg ttctg 325

<210> 59
<211> 235
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-7-1

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<400> 59
gttcatgtat tttatgtaa aacgatgaat ttgcagttt tagtatgagt aaatttggtt gtaatgaagc 120
aaaaagaatg tggggagttc tggttcttt agcttgttta ctagtagtgtt tttcatatga 180
gtatgttata tactaatgtc taatgaaagg caaagaagta tatatatttt gattg      235

<210> 60
<211> 307
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-8-5

<220>
<221> misc_feature
<222> (217)..(306)
<223> n can be any nucleotide

<400> 60
taatgagcgt gacggaccaa attagtata tagatagttac atatcttcg cattctagta 60
caatttatacc ccatacaaga gtatacatttt atgttactcc atacaatga aagttaaaaa 120
agttattgaa tgtggattc ataatcatag ggacaagcga tgtgaattct ctatgtttt 180
atgaacgact tgtatgatat gcttccttag aatacanaaa ttaaatatat ttattgcnaa 240
aaaaaaaaata cntgactcan aggaatcnac gagggttcct gacnctcaag agcttcacnt 300
cntcanc            307

<210> 61
<211> 342
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c17-3-1

<220>
<221> misc_feature
<222> (35)..(243)
<223> n can be any nucleotide

<400> 61
aagaatacaa gtactgcattt cacaaggcattt ccctngggca gagcttggat gatattaaag 60
gttccttcga gtggtaaattt ggcaaaatctt gctagcgtgg cctgtgtacn cctgcatttt 120
ttccccattaa caacttcctgtt ttgtatgtat ttgtgtcnatc gtgtggatgc tcattgattt 180
gtactaatctt gtaacgaagt gcaactttca gagattaagg ttttgggtt catttcngtc 240
ccntgggggtt ttccggaaaca actatgggtt cttgtaaattt cctctgatct tgacagtggg 300
ggcaatattt ttacaaattt atttcaattt caaccggta ta            342

<210> 62
<211> 287
<212> DNA
<213> Nicotiana tabacum

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<223> n can be any nucleotide

<400> 65

gatagtctat tagttaccca aacctgctcc gtatatttg catattgtca aagtgatctt 60
tcaggtactt cgtgattgtt gtattcattc taaattttgc gatcaaata gttcatcctt 120
agtgattgtta caantaatac taaaactggc actattnngg tttgaattca cantttctca 180
cataatt 187

<210> 66

<211> 382

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c18-1-2 ; homology with DNA-J domain
containing protein

<220>

<221> misc_feature

<222> (53)..(53)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (72)..(72)

<223> n can be any nucleotide

<400> 66

cttgataaga ggatggcaaa cattcaaaggc cgcacctcgaa gttcgagggt ttnatccgg 60
tggtttgaac angttatgac aagaagggaa gcagcattaa ttcttgagggt cagagaaagt 120
gctgtcctgg agaagataaa ggaggctcac aggagagtaa tggttgcaaa tcattccagac 180
gccgggtgta gccattatat tgcttccaaa atcaatgaag ctaaggaagt cttgttaggg 240
aaaaccaaga cagctaattc cgctttctaa ttaccattt tggttgacc ttcccttctta 300
acagcttaat tgtccgtata cgtgtacaa agtgaatttg tatccgtaga catgttacta 360
tcataattta ggagacttctt 382

<210> 67

<211> 340

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c18-2-1 ; homology with CCT (chaperonin
containing TCP-1) beta subunit

<400> 67

aatatctgag tcgttcaaag tcaaacaaggc agtgttgctc tctgccactg aggctgctga 60
aatgatccta agggttgacg aaatcatcac ttgtccccca aggaggagag agggaatgtta 120
aaaacaatat tggtcatgtt taagctgtt agatgactcg tattttattta tggtttgaga 180
atttgagatg gtaggtgtgg gctgtaaacg agtcaaatga tagattgcta ttggaaccat 240
gctaaagtgc actgcgctga gtatgttctt ttgaggagca aatgttttg tttgtttca 300
taatgttatgc atgcttctat agaaaacatt tgttcgatac 340

<210> 68

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<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-2-11

<220>
<221> misc_feature
<222> (70)..(294)
<223> n can be any nucleotide

<400> 68
aaataagggt gcggaagcaa acaatccagg acattctgct ggatcatgg tataccgtaa 60
tgaaggttt gttantttgt ttctgtggca ttgttcaaatt ctttatcag tnctccgctt 120
ctatacgaggc aaaaggaaat ccttttttc agcatgtacc tgtaataatt tgtaaaaata 180
aaagttgata agtcatgttag cttagctgtt taatagaaga aagagatgag agtgagattt 240
agatatacatg ttttatctat accttnctgt ggtatgttagg ctttactgc tcanctcata 300
cctcattgac acatctaattc aaattattcc acttct 336

<210> 69
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-3-10

<220>
<221> misc_feature
<222> (63)..(324)
<223> n can be any nucleotide

<400> 69
caggcaacta ataccaagcc attagttct cattatgaaa aactttacaa agacaaaatt 60
acncanaact acaaggccaaa aaagctcaac atagtaactn tgatcaaatt atcatataat 120
atttgcagcc ttggacacac ctcagcaaca gaatggaacn tcaacaacac taanaanttg 180
cacacctaaa tccaaaacaa aaagactcga ctccgtatca naaantangg tttacntgaa 240
aatgtatgat ggtnancaac actgaaactg tctaacnancataanttcnc nctctcaana 300
caancnttat ctctgttcgt tnancgtt ggtttat 338

<210> 70
<211> 323
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-4-19 ; Arabidopsis genomic homology

<220>
<221> misc_feature
<222> (102)..(154)
<223> n can be any nucleotide

<400> 70

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actaagtttc tgcatggc ttgatttctt atcaagttga gacaatattt gtcattacaa 60
ggcattttta gtacaaaaaa aacatttagca gtaactaaaa antatanctt ctgtttggg 120
gggattcanc aatttgaaga ntctgttgcg tgannttaca agctttcttg ctccataatct 180
ccactctcat gcttcactc ttctcaatct tatcgtaaga ttccatttcat tcagagacc 240
tcctcaattt tgtctcaag ttcatcatta atctctcaaa tcccatcatc tccactctgt 300
atttcttc aatttaattt cct 323

<210> 71
<211> 326
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-4-22

<220>
<221> misc_feature
<222> (111)..(323)
<223> n can be any nucleotide

<400> 71
taaaggatat taaaaagtaa atcctgcaag cacatataaa ggtatgttc tacaaaaaca 60
taaatcgat aggtagaaat gaaaggcggg ctgagagggg aagtgcagca nagtgatctc 120
ctgataggac ttctgaacca catnctacgt nngcttaaa gcactcaaag ccactactgg 180
agaaacagca ctctccactt gtatctcagg aatgcactat aagaaaatct antatactan 240
ctggacaata taataggtag gtatthaagt ggaaaagggt aaagggacaa gcccattatc 300
taccatgttt tgaactgcgc acncgg 326

<210> 72
<211> 256
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-5-1

<220>
<221> misc_feature
<222> (25)..(220)
<223> n can be any nucleotide

<400> 72
atatacatct ggagcaaatac acgantttta atacaaaact caccctacaa aacatggant 60
cnccactgca tcttaggcat ntggacagca anaaaaacaag caantgttt qgccgcctnc 120
actatttaca tttactctat tttgaatttt ttaatcaatt tgattatntt atttggttat 180
tttatttcta cacttaatct gggattgctg attcagttt gacttcttta ctttgtattc 240
tcacttcgtc actggc 256

<210> 73
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>

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<223> plasmid c19-5-4

<220>
<221> misc_feature
<222> (25)..(199)
<223> n can be any nucleotide

<400> 73
attnaatgaa tttagggaaa atctncttt gtttnggtt atattgcaca ttctcatgga 60
tattttact atttgttca tagtttaaca tcagcaagtg ctttcttatt ctggatatatt 120
gacgccaatg tantaggctt tgactttctt ttaaacattg ttgttgttga catctaaagg 180
ttctctaaat ttgaatttnc actcttcaat ttgcttcctt tgaatgcaat attgctcg 240
agctttgcat ctttgat 257

<210> 74
<211> 242
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-6-3

<220>
<221> misc_feature
<222> (70)..(210)
<223> n can be any nucleotide

<400> 74
caaacttagga tgtctgaaag actgaaagcg ttagaagtaa ataagtactc atttacagcg 60
gctgggtgt acataccaaa acaaaaacatt caacaagatt gtatccaaa gaatacctgg 120
aaaaattaca acacttggaa actgaanaac cttanctgac cccagaaaac cattaaaggt 180
aatatagcgc atcttacac gttgtgaan atcacaat atcctcaatt tggtgcctaa 240
ct 242

<210> 75
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-7-4 ; homology with putative
      translation initiation factor 2B beta sub. NIFb

<220>
<221> misc_feature
<222> (11)..(11)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (176)..(176)
<223> n can be any nucleotide

<400> 75
ataaaactata ntaccattta gttgttata atacgaatga ataaaccatt cgacaactta 60

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acttttcaatg caacaatagc atacgtgttg tctaataata ccacaaagga aaaccacca 120  
caagtagtac tctgcataatc cgaaaatcaca aaactccagc acaaatactaa tctcanaatc 180  
aatctacaaa ctccaaaaat cgcgatgctc tttcatctg tttattgcag tcagtataat 240  
gttagtgtcaa catcttg 257
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<210> 76
<211> 384
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-1-10

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<400> 76
gtgcagtaaa ctgaatagg tgcacagagc agctgccaga tgactcttca tgccggtaggg 60
tttttcttat attactgcca tacagtattt gagctggaga tatcaagacc gtgcgttagctc 120
tgctgattag ttgtccgtat agatgacagt gatacataag ctgacttgg aatccaagtat 180
ctggtctacc acaattgatt ttctttggga tttaactcaca atattcttaa acgatttttg 240
ccggataaat gcaatattca ttgattgtaa tcaatcacta caaggaggat gaagaatata 300
ttcttaaatg attttgcca gataaatgtt atattcatct atatggatag atgaattctt 360
gatcaaatgt aagttcatgt ccat 384
```

<210> 77
<211> 181
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-11-14

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<400> 77
tgatgcgcat atcaaaaacta attatttatcc aagccaaagc tatkcttgc cagttgcttg 60
ataaacacata tcttttgtgc ttgattttaa aatacatgag gtgtatttgc cgtttagtc 120
tattgcagcg gtgttcaatg taatttacac tgatacaaaaa taaggtaatt tgtatattgt 180
q 181
```

<210> 78
<211> 182
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-11-2

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<400> 78
aggaaataact gcatcaaacg gacaacaact cgatgcaggt gaagaatcct agtgctgtaa 60
ttgcttaataa caagcacata gtttgcgtgc tgctttta cttaatatt ttccccttg 120
aaggttgtgg aatcgttata attttgttag ttaaaggcg 180
tg 182
```

<210> 79
<211> 359
<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-2-1

<400> 79
aacgggatac tgaatggtag gacggcctct tcttcgacca ctagcaacca tgtagccgac 60
caagttcaaa gatgaaaacat actgtatttt gccagtggac attcttttg tggcttat 120
ccttataagg ttttggcat tatctctgtt attccttgtc aaagtagacatt atgatggcag 180
acctctttag agagatcctc aaagtttatg tggtgttat ttatatcatt tttctcgat 240
agttaaatat tagggatat tcttccttcg gccatttgat ttgggttcaa ggtcttgaat 300
gtcgcaagaa atagctcagt ttaaaggagt tcatgtat tcttccttc tctgccccc 359

<210> 80
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c2-2-3

<400> 80
agaaatatacg ggtaaggctg cgtataatacg attcttgg ttcgaccctt ccctggcacc 60
cgagcttagt gcacccgggtt gccctttat ttcagaagat gtatattatg aactcttgg 120
tttagatttag ttcagattat ttttaagaa attatttttt agcaaagagt aagctcactc 180
tttgttctta ttagtaataa gtttggtaag ttatccccc acaaatgata tacagtattt 240
gtgtgaggtt tgtgagggtc atattcttgc gtattaattt ttgcaatgca acgtgtattt 300
gctcaattgg ccagattgg tttcttctt taatgctaag cactacttgc tatcat 356

<210> 81
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c2-4-1

<400> 81
gtggttccg tgaatcgtga cgccaaatat cagtttagcaa tggtaactaa ctccatggca 60
acatactggaa aatgagtgaa aatctgaat ttccagatgg gtgtgacttc ttcttgcata 120
gctgggtgtt gtttaacttgc ccttagattca ctctcaactct cattgggtgt gtcctgtgc 180
tagtgacggg tcttatttgc gctctttaga gttgatgtta tatttactct acctatctgt 240
tgaagtttat ccaattggta tactttttt gggttggaa aacaaagtgc tattcgaatt 300
tgtaatttca atttcgatca aaccacctta aatctgtt 338

<210> 82
<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c2-5-6

<400> 82

ggtggcctaa tttgcagtt tgatttagt tcatcattag ctatcccgt gattgaagtt 60
aaatgccgaa aatctgtttg taacctaattt cttcaacaaa tcaattgaaa tatcacttca 120
aggcacttca ggtccctcctt gcacgggttg agagttcca acagatttcg gagattcact 180
aggttagctgc ttggcattcg cagcccaatg cttccctc tatcttattt tctccattt 240
tagttctgtta atagactatg tagactctt ctgtttaaa tcggtagta gatattcatg 300
actggtaca ccccggttgc gggctatgtc tatttc 336

<210> 83
<211> 256
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-6-5

<400> 83
ttaaagaatg ttttgtctaa tcttgcgtg gcttaatgc acgtcaaagt ttgctgtcat 60
ccccctggcaa tagcggacaa caaatctgcc agctactgat gctgatgggt atttgtttaa 120
gtggagaagt aaataggatt ttatatactaa tattattgcc tttcatagg tctcagagtat 180
atgtgttagaa caagcacagc tgcaaattgt tattactaat tttatggtgg aaatctgttg 240
aaagttattt tctttt 256

<210> 84
<211> 254
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-7-1 ; homology with patatin 3'-strand

<400> 84
atgatgtcgg tttgcattt tggaaatgca agtttactt tggcagattt ctccaagtcc 60
tttaggggtt atggatttcc cctacaacag aattactatt tttcccttct ttttatgttg 120
tttggctta gaaggatgtat ttatattttt taacacaacc aaaagtctac ataatcctta 180
gcataatttca aatttacata gagggatatt tctattgaaa tttatccctt aacgttacaa 240
gcgcatttttca ttta 254

<210> 85
<211> 219
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-9-14

<400> 85
ggaatacat tgggtttgtc gtttgtttgtt ttggatgtta gtagaccggc aagatatcta 60
gcattttgtt tctgttaaca tggacattat ggatttgtaa attcaactga ctacttgcac 120
acgtctctct ggacattcgg gttattactt ggtacaagtt aataaacactt atgctctctc 180
ttatattttatg ctttctgtatg aatattccctt ttccctctg 219

<210> 86
<211> 337

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<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c20-1-4 ; homology with DNA-binding
      protein (pabf) [I]

<400> 86
gaagatgcgc tttagacttgg aggcaagtgtta gctacacctacc tctaattgtca attttgttagg 60
ttaaaaggcagg atttgatatt ttgttgacaca gtatgaagta tgtttttagtt ctaactgtat 120
tagcagtgtta tttcgtcatt tgataattac cttattctgc taatttggtt aatgacaatt 180
aaggggggaga caaaaatcatg ctcgtgggct atatgtactg ttgtttgagt atgttgaatg 240
gatggaaatg cctttgttag atagatgtat aatgccggca ttatccctca tcaacagttg 300
ccttgc当地 tgcgtaaaaa gcatttgaat tttattt 337

<210> 87
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-2-4

<400> 87
aaggcaactc cacgttagtg ttataaaaacg agtttaataa agtttgactc tgataactatg 60
tgaaaagaatc taagcactaa aacaaaacctt taggcaata gtataacatt gagatgttc 120
ctttctaatt taaagaagga tagaagttca gtgcactctg ctcacaagat gtagtacaag 180
gattcttgc当地 ccaaggattt tgatggactt catgttgaga ttggaaaactt gaattcatta 240
ctggagatca ttgttcatgg ccctataaat ttgaaatttc aaagatacaa atcaaattac 300
ttatatgtgg catacaacaa gacactacta atacata 337

<210> 88
<211> 92
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-3-6

<400> 88
gttgaccgt gcttaatata ggcagggagg ttgataatta tataaaggcac atctgaatgt 60
taatccacgt aagaacttaa tttgattgtt tt 92

<210> 89
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-4-1

<400> 89
gcatacgtt tttccacca tcagattgtt tggcttgcga taagagacga cttcttttag 60
caaattata tgataacctg aagaatata tagaattaa tctgtataa ccagttaat 120

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agtactaatt acaactttt ttttaaagtt gtttgtaaa cattttcat gccatgggt 180
ttgtcaaga ccgaaaaaac gtgggttgc tacaaaagtc ttaacctggc tagctagcta 240
cctgctactg agtatct 257

<210> 90
<211> 345
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c4-1-2

<220>
<221> misc_feature
<222> (44)..(45)
<223> n can be any nucleotide

<400> 90
taatcaaaat tggtaaaaca atccaaacca aaaaaaacgg ttnntgttg ctctgtttg 60
aaatatattc gaatgttcct taatacctag cgtatgtaat aataaaaatg tactttgtt 120
gctcttggat gtattggat tatttaatta tattttagat ttataattt ttaaggcta 180
atcgaatagt gttgactgat gtttggaaaa tgtcatcaga tatcaatgtt ggaagccatt 240
tagctcagta aaattttttt aactaaatca aaagaataaa atactatagg ttggagtaaa 300
taagttgtta atggtagtgt tttctattt agtcatttgg gatta 345

<210> 91
<211> 193
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c4-3-3

<400> 91
tactcacggg gattaatctc atcacggttt caaatggaca aacaattatt ttacatggag 60
agttagagacc ctccagcttc ttttattgt tagtagtagt gtgaattctc gtgttctcaa 120
tttggatagt tatggttct aacttatgta ttagatcatt ttaacaagca gcacagagat 180
caaattgttc act 193

<210> 92
<211> 340
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c5-1-2

<400> 92
aaactagtgg tttatttgg tcacgtgaa tatggaggcag ctgcaataat atttcacaa 60
tagtactcat tgactagatt tgacacttcg gatgaagcca aggcatcttc agagtttgg 120
attctacaat gtttccaagt tataatctgct ttaatcggt tctgcttgc gcttaattgt 180
cttttgcgt gttataccgt gtccaaatgtt gattgttagt ttagggatt tcagattgca 240
aggccctttat ttactcggat caaatttgc attgcttagtc ccctttttt gagaaattct 300
gtatgtccca tttcttctt ccaatggAAC tttcacttta 340

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<210> 93
<211> 343
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-13

<400> 93
agcagaaaaga caagtgtgg tctggagcca taaaatcgcc cgagtactct gcctcctt 60
gttctgtcc aatgcagttt tccactgggt ttgctgtggc gtaagtctt tatggtaacgc 120
aactcaaaact aataaataaag gaaactgttt atacagctt tggaaagcta acccaataaag 180
atttggtcat aagtagatgg gttatgttca gtttgagaca ggcaatctct ctgaatgaa 240
tgggttcag cctgccccta ttgagaggaa gaggactct tattttctt aaacccatag 300
acaagtcat stataaaaat taatcattat tcttttttc ctt 343

<210> 94
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-4

<400> 94
gataggatc agatggacct tataagttag aaaactccta atgcaatcat cttaacttat 60
tggaaatatt tatagtgtga cagatacttg gccaaatgtct acagttatattt gtactattta 120
atgaacaagt tttatgggtt ttggatatag atgtaatttg ttacttcaga atttattttt 180
ctgagttt cactggtagc atgatttaca agctaattgt atccattttc tgagggatag 240
gatacagttt gattgctttt caatatctga tttgacactt tgccctatga ttcttgaaa 300
ggaatggata caagcaagct tattgctgtt ctgattt 337

<210> 95
<211> 294
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-9

<220>
<221> misc_feature
<222> (165)..(291)
<223> n can be any nucleotide

<400> 95
atctacacga gcttcgtatg tgtaagacta ctggatcaga ttatccactg ctctgataacc 60
atattaaaaat cagtgacgta atgaagaat tgaactcgag gtatgtcca attatggaaa 120
tggaaacttg gcgaagaagc cccaaattag gggcatgtgc gacannngag aagaagagaa 180
cttagaagtg aaagtctcaa ttgtattgac tatgtaatgt cgtatatac agtgttttaa 240
aagggtgtggc gtaaggctag qcattttaca catacctcaq cqqqqcqtaa nata 294
```

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<210> 96
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-2

<220>
<221> misc_feature
<222> (37)..(234)
<223> n can be any nucleotide

<400> 96
caaaggactg tgcttcata ggg agaggtnntg cagccactga cacatcaagc 60
accaacgagg aaaaggaatt gaaagaaaat aataaattcg atgttaggatc aaatttctat 120
ttgggtgggt taattttant gaagttgata ctgcaacagg agaatgacag tccttgaaa 180
ttttaagtta ctattaatcc aacaagagat tgcgaatatg ggaggtatga gatnatctct 240
gttctttac cgcccttac atctgaagc aacttagcat aggagttctt aaatgtatca 300
aatatcaata tttcagcag agttcatttgc ttcttat 338

<210> 97
<211> 341
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-6

<400> 97
agtgaagggg gcaagagaag aaaagaaaaaa gaagaaaatg tcagtcacaa acattcaagt 60
gtttatatgt attcaacttt tatactttt ttcaaatgtat ttttactttt gcagatgggt 120
gaaagaaaaaa gaaaagagtt tttccaaact cgagacagaa aaagaaaaga aaaagcattc 180
ctctcttctg aatcttgatt gcgtctttgg tggatcgatc caaatgtcct gagatgggtg 240
aacttcacat ggtcgctgg tggatcgatc tggatcgatc tggatcgatc 300
tttctactat aaatcgaaat tttatcgatc tggatcgatc 341

<210> 98
<211> 314
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-10

<400> 98
atagcatata tatgttgaag cccctgctcc caactcaacc ccctcctttt cttacagcca 60
ttaatataatt ttggaaatagc tatttcctat ttttagaaaaa aacgaccatg tattttcat 120
tgacaagttac tttcataccccc tgctcaaagc aatatgtgtt ttctcgatc tgaaatgtt 180
ttttgtgtg gaacaactct tggatcgatc tggatcgatc tggatcgatc actcggcctg 240
tgtgattttt tacatttggt tgacgtttt ctcttatata agaagagaca gtgaggtgtc 300
tgtctcatgg tcag 314

<210> 99

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<211> 276
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-3 ; Arabidopsis genomic homology

<220>
<221> misc_feature
<222> (89)..(89)
<223> n can be any nucleotide

<220>
<221> misc_feature
<222> (186)..(186)
<223> n can be any nucleotide

<400> 99
ggctgagaag aagaagcgca aagctcagtt gcaggaggcc aatcgaaaaaa aaatgaataa 60
gagagttagag cgtaaaaatgg ctgcagttnc tagggataga gcatgggcag aaagactggc 120
agaactgaag aagctcgagg aagagaagaa ggcagccatg gcttgcgtt tattgaacag 180
agtttngatc tgttaatttt ctctcttgg tttgagatgt aaaaatatat taatccctta 240
ttaataggc acaatttct tcacacaatt tttatt 276

<210> 100
<211> 418
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-9

<220>
<221> misc_feature
<222> (3)..(409)
<223> n can be any nucleotide

<400> 100
acnaatnaga antaccacgt gnantgtcnt gntacngtna taagngaaga ggttcgatcc 60
ngntcatcnc aaatgncant ggccccgtgg naagctcagc cnngacaccc gantgttgc 120
nnngngtntt attacagcta anntttattt ctccaaangn gataanagat ngttctgtga 180
nnaggnntng attgnatccg ccggagancg gaaagtnatt nttgcatcat anagtnngtn 240
agangtgact cccntntctn tgcngnata tntntattgg nnggggntnt tttagnattc 300
cagtnccattc cganatatacg atcncanatt ncnatannntn tacnanngcg ccccccncng 360
nntgtannnc atnngggaga tctcccanac gaggccgan gtagagtng aaaatctc 418

<210> 101
<211> 244
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c8-1-5

<400> 101

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ggaatatgca taatttgtt ttctttttg tttaaaagag ttcaacctag ttttatctgc 60
 cagaagagag aaacatcaag atgtgagcat cagacaagct tataatactc tctctatata 120
 gatttctaca aagcttattt ttggtaatg cttgtgtgt gtgtaatact tcaaccccat 180
 gggaaatgcta cgtttattag ctctgtctgt ggcacccaaa tgaatcttga ttgtgtcatg 240
 ttct 244

<210> 102
 <211> 346
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c9-1-4 ; homology with Drosophila heat shock protein 82

<400> 102
 gaagtcgagg accgtgccca acggtcagca attacaagag taaatgcaga tgatgttcgg 60
 gtcactgtat ccgcacctgc agctcggtgaa gaagctaaca atgaacttat ggaattcatg 120
 ggtcgagtac tgggtctgaa actatcttag atgactctcc aaagagggtg gaatagcaaa 180
 tcaaagctc ttgttagtgaa ggatttgaca gctagacaag tatatgagaa actcttgaa 240
 gctgcccac cttgagatgg ctccctgatc ctttcttct ttgtcatttt ttccatgttt 300
 gtaacattgg attttagtt tcataaaaatt gaattcagtt gtcttt 346

<210> 103
 <211> 360
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g10-1-1 ; Arabidopsis genomic homology

<400> 103
 gaacgagaac aaaccatctc aaaagtacat cgagatagtg actgaagata attttgaatt 60
 ttggttcatg ggcttgtac gatatgaaaa agctttcttgc aatttacaaa aggctattc 120
 catcacgaat tagctagctg ttaggcattt gaatttttag ggttttaaag aggattcata 180
 attctgtaat tgttctttt tccttattaa atgttgaact ggttagcatct aatctatgct 240
 tgttcatcat tttctttct ctcaacggaa gaggattga gatttatgag aattgaattt 300
 tgttagattct gaaatttaat gaatttctca acatatastat aagatttaga ccaaagttac 360

<210> 104
 <211> 556
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g12-1-21 ; Arabidopsis genomic ABA-regulated gene cluster homology

<400> 104
 ggtgggattt gactatgcat atcgaaagc aatgaattcg actatgaaat tcatacacaag 60
 ctcaaagaac aaggcgatac catttttag aacgactacc cccgatcact ttgagaatgg 120
 tgaatggaaat acgggaggtt attgtatag aacagaccc ttcaaacaag atgaggttga 180
 cattggttat gtagatgagg tgatgcgcaa aattgaatta gaagaattcg agagtatatc 240
 gagaacagaa tctgcagaca ggttgacaat gaaattgttc gataccactt tccttcgct 300

gctgagacca gatggcacc ctggagtcta caggcaatat cagccatttgc 360
ctaaagaaaa tatgaacaaa aagattcaga atgattgtct acatgggtgc 420
ttgcccggcc caatagatttgc 480
gtggAACGAT gtaatgtatgg aaatgttggt caccagtta 480
aaatgggtgtg acatttagatttgc 540
ttgattttgc tccccacaatt gtattgttca tctgcaaaag atgggtgcac 540
actatTTTC 556
accattgttt cctctc

<210> 105
<211> 579
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g12-1-5 ; Arabidopsis membrane related
protein CP5 homology

<400> 105
tattattcaa gttggtatat tggagaagtgaatcaagtgaggtaacag ccagccgacg 60
cgatgtgaag tgattctatt ccatcatgaa gatatggca tcccatggaa aattgcaaaa 120
tttgggttaa agcaaggatgtggggagctgtgaggaaga ttgagcgggg attccgtgcc 180
taccagaaag ctaaagcatac tggctgaaa atatctcatt gtgcTTTat ggctagagtt 240
aatacaaaaaa ttgatcgaga atacttgaag tcaatgaaatgtatgagga ctcatctgaa 300
actgaattgc aagcttcacc tgcAAACCT gaggcatga acataccaa gctgattatc 360
atgggtggag ctgtggcagt tgcttgatcc cttaatcaag gaatcttacc caaggtgtt 420
ttgtttaatgt ctgtgaaaag gtttggaaat ataggaagga gagcatgtcc aaggacatga 480
catttgatttc atgcgtgcat tgcgcatttgc 540
gctctttata tattttaaac aagcaagtgt tattttgtc 579

<210> 106
<211> 358
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-2-4 ; homology with vetaspiradiene
synthase PVS4 (sesquiterpene cyclase)

<400> 106
gatagcatgg aaggatgtga atgaaggaat tcttcgacca actcctgttt ctacagaaat 60
tctcactcgat attctcaatc tcgctcgat tatagatgtc acttacaagc acaatcaaga 120
tggatacact catccagaaa aggttctaaa acctcacatc atcgctttac tggtggactc 180
cattgaaatc taaaccattg agtgctttt tcatctcgat gatcgTTTA tttttatTTT 240
taaataaaagg atcagaactg tgTTTCTGTG ttccTCTTTA tataagcaag ttgagTTCC 300
tacttctgtt caaacCCTGT gtttgttctt ggcgtctgaa taatataatt ttgtttgc 358

<210> 107
<211> 264
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-10

<220>
<221> misc_feature

```

<222> (219)..(220)
<223> n can be any nucleotide

<400> 107
caaagataaa gaaggctgga gttgttaagac aggagcttgc taagcttaag aaggacgctg 60
cttaagaact ctttgattag tgagattgt atgataggag ttttggaaat cggtgtgtt 120
tgcttttaga ttttggttca ttactggcaa gtcatttggt ttcatctttg gtgtcattga 180
agactcctag aaatcaattt cccaatagtt ttcatttgnn ttatgtatgtt gaacattctc 240
ttcgagaca cttcattttg ttgc                                         264

<210> 108
<211> 211
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-22 ; homology with orf 03 A.
thaliana

<400> 108
cttccatcaa gcagggactg gttggggac tttatgggtt ggaaaccagc agttggatg 60
gagaatagcc aatcattctg ggcaatttta acaatatgga tagcttggt tggagctgca 120
ctcttttgc aaaagtgaat catatacaag taaagctgtt tattgtctag ctttctattc 180
tttattggta tatatagtct gatgtgtatt g                                         211

<210> 109
<211> 262
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-3 ; homology with sequence 161 from
patent EP0953640

<400> 109
acattataat aggatgtaaa gaatgaagca ggaagcagtt tcttactaga acttctacta 60
taatttgtga tttatattgg gttgttcatt cagaaagctt tgccaagtaa cttagaatta 120
gtgtttacat tttgatgtct ttgtttgtat attactaaga agaaaagata ttggggaaaa 180
aagaaagcca gaccactgaa tggcaggctt gatatgaaaa ctggccatgt atagaaggat 240
atttcgttta tttcattttt tg                                         262

<210> 110
<211> 265
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-4

<400> 110
gcttcaagt gatgatgtat attaaaggc catgattaaa ttgggccgtg gtgatgaaaa 60
tggtggtgtt gtcacctttg aaggtttct ccaaatttttgc tctctttgtt ttgttgctt 120
gatgacgtat ataaatgtca gattaggtga acaagttttg gtttactttg tattttcaa 180
tgattttgtt tactgtgttgc cttcatatgc tattggctat ccggagaatt ctatttgaaa 240

```

acaaagaaga aaaagagttg ttccg

265

<210> 111
<211> 260
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-7

<400> 111
atgaagaaga agagggcggt ggtgatgact acatttagtt tgaggatgaa gacattgaca 60
aatatctaaat ctgaacgcaa agctgctgtt actgagggtcc gttataggcc tttctaattgt 120
ttttgtggag cttttccat aaacatttag agtgatctt gtgtatcgtt tgaagttatg 180
tatcaaactt tgtcattgt gagttttgta ttagatttt gttccatga aatgaatgca 240
atattcttagc tgggtgtctac 260

<210> 112
<211> 469
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-1-37 ; Arabidopsis genomic homology

<400> 112
atattcctgg aaacatctca acttgcataca tccccacttc gtcaagatct accgccaagt 60
gtcatactgc accatctta ctcacgcggg cctgaagaac tacaatcacc attgcaaaga 120
aatagactta ctccgacgca gtattcactc tggatggatt cacaagggga ggaccaaatac 180
tggaaaggta ttaaagctac tctggacgac tatgctgcta aggtacggc aagaggggac 240
aaggaattta gtcctgtcta tcctttgatg ctagaaatcg gctcttctt atctggaaat 300
cgtagagga gctttgagag aatgcaaagc tcaaatacatc ttctcttggt atatgccctt 360
ccccatattt ttgttcaat aatattgtca cagatgaaca catagcagac cgttatctat 420
gttcgttta gtgtcttact ttctttatat attttacctc aattgattt 469

<210> 113
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-2-2 ;homology with ubiquitin [I] able
to induce HR-like lesions

<400> 113
gttgatgtcg ttgtgtcgtg ttgattgact gtgtctgttt ctgggtgtgg tcgtgatgtg 60
ctttgtctac tgaggctca aagatgttct atgctatttc tggttgctgt ttctctttagt 120
ttctctgttg tgaataaaaga ttccgaattc tgccctaaaa aaaaaaaaaat gaagtttatg 180
tatattggaa gaagcattgg tgcgtcacc aagtcccatt tgatatatgg ctgtgttttt 240
gcttggctaa ttgtgttta aactttctt ctatctgtc tcaatatact cctgaacaga 300
ctgatgtacg attttaaagc tatgtatgtaaactctct tatctttgc 350

<210> 114

<211> 345
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-3-11 ; homology with sequence 7 form
patent EP0953640 [I]

<400> 114
gtggatgaag ttaaggtgac ccctgttgc tagaagtaca cagagcttt gtaatggtca 60
atagagttt ttgcaatgct aatttcatac ttattaagct accactgtga ggcaattgct 120
gtattttacc tatgtgattt cttaaaacta tgaatttagat gcctgctgtg agacattgtgt 180
actattgctt ttaaggaagt gtggatctag ttgaacttcc tctccttac tatgtgcact 240
ttgatcttga ttcttagata gtcaagaagt aatatataaa attgtactac tatatttcaa 300
attttcatg tttcttgaag gatgaaaatat aaatgagttt gtaacc 345

<210> 115
<211> 344
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-3-7 ; Arabidopsis genomic homology

<400> 115
gatacatgga atgaggtagt gtttgatctc atagggagag acttccagag tagacagagc 60
aatgcttcattt aagaagaagg atccttaatg ctaaaaaaca ttttttgtc ttctacagca 120
cagctacggg aagattattt atctctctcg aatggagttt agcttttagt ttacttttaga 180
tctcttggtagt tagctgggtg tgtaatctat gtttagatat ccacggtaag ataattccta 240
agttacacga aattttcaca ggtctcaagt atgtgtgcag ggatatttaa ctaaatacaa 300
acgttttctt tgcaataaaa tatttcatct gattttccc tcgc 344

<210> 116
<211> 301
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-4-1

<400> 116
tgaatgttta atgttagaaa gtgaattact ctcttatgt ggtgtctgaa catatgttca 60
acattactct tcaaattacc aataattaat agtgcgacaa gttataggtt ataggttcat 120
gaaaaattgt ttccatcttg taaatttagt tgctaaattt atcacacatc tgtgtgcacc 180
tatattatag tttctgctt cattgaaaat gagttcaag ttttctagtg gaatggata 240
tgttagtagt aagttggagg gttgctttc attctttga aagggtaaag caaacttaag 300
c 301

<210> 117
<211> 525
<212> DNA
<213> Nicotiana tabacum

<220>

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<223> plasmid g17-2-13 ; homology with wrky (zinc finger
      DNA binding protein)

<220>
<221> misc_feature
<222> (466)..(521)
<223> n can be any nucleotide

<400> 117
aagtggatat tttggatgat ggttatacat ggaggaaata cggacagaag gctgtcaaga 60
acaacagatt cccaagaagc tactaccat gcacgcata aggtatgtac gtgaagaaac 120
aagtacaag gctgtcaaag gatgaaggag tagtagtac tacttatgaa ggcatgcatt 180
cacatcccat tgagaagtcc acagataact ttgagcacat tttgactcaat atgcaaatct 240
atgcttcctt ttgaaacgtc catcacttca atgcctaagg catgacactc aatttagtcac 300
ttgtaaaata gtactacagt atattgttca catcggtttt gaaccttagat gctatatttt 360
gaaataaaaac gcaacttcat taggaaattt aatttgatca ttgtacaact aaaagtaatg 420
ttgctatttt tttgtttta tcactttgtt tttgccggag ccatgnctc attttaactc 480
tttcttttag aattaacaaa taattnatcg ttggagaaga ncgtg                      525

<210> 118
<211> 225
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g17-3-2

<400> 118
gaccaaattga gcaaattgaa gaaatgctgg agatcaccac atacttccag gcaaagcaac 60
ctcaatttt gttacaaaaa gatttcttga ttaaactttt gaaagtaaac acgtgtgt 120
agagaagtaa atgcaggcac tgggatttca atatcggttca attgtatgtcgt gtacagtagg 180
agattgaaac taaacatttt cttaagttc agtacgtgtt cattg                      225

<210> 119
<211> 412
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-4-7 ; homology with L18 (60S)
      ribosomal protein

<400> 119
attgagaagg ctggaggaga atgcttgacc tttgatcagc ttgcttttag agccccttc 60
gggcagaaca cggtaactgt taggggtcca aagaactcgc gggaaagctgt taaacacttt 120
ggtagagctc ctgggttccc acacagccac acgaagcctt atgttcgggc aaagggaaagg 180
aagtttgagc gagcaagagg gaaaagaaag agcagaggtt tcaagggtt aggaattgcg 240
agtgttttag tgcacatgtt gagaattttt ttttagaggt tttccctacc tacttttac 300
catatttagct tcttttctt gtcgaatttc ttatttcacc cctgtttctg tgacactcca 360
acctatagcc gatttgaat gcttttattt tctattctac gaaattaagc tg                      412

<210> 120
<211> 373
<212> DNA

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<213> Nicotiana tabacum

<220>

<223> plasmid g18-5-1

<220>

<400> 120

acattatcaa gacgaaggca ataagtgggc ttactcattc ttactgaaaa acggggctgt 60
gaaatttggtaatcttca agaatgtact ttttgccatc aatagaaaag caaacaatat 120
tgtgttcagt tacagccttg ttgggtcttg ctgagagttt ttttcttagt tcctgaaaagt 180
tatcttgc aa gctatcatgt agctgtgtgg taatttcac aggttgagc tacagttgaa 240
gccagtaaca tgtgttgata ttatagctaa aataactaat gtttacctgc agtttccgtt 300
tgtgtgaaat aaggagaaga attgatgtgt aagcatggct tctgtgagtt gactctatta 360
tctattgcat tac 373

<210> 121

<211> 390

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-5-12 ; homology with
capsanthin/capsorubin synthase, promoter region

<400> 121

gttgcaagg gtgtatccga accctatttg cagaaaaatt atactgtata tacaaggta 60
aaatttatttt ttctgtttat atagtttagt gttaaattgt cttggcttt tcgtgtattt 120
atttctttat atttgaatc ttcttggta aaatccttagc tctgtacaca caaagagccg 180
acatgctgat ctctctctt ctctggacgg agagtcttctt gaagtgattt tgtgttctt 240
cagtgtgttt atagatcaat ttatgtctt tgtcaaattgg atttctaagt gaaaaaagag 300
aaaaagtatt tcaatgcgtg tgacctaccc tgcataaact ctgcatgtg gatataacaat 360
gtttctgctt gatataatgtat tatgtttgg 390

<210> 122

<211> 381

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-6-12

<400> 122

tcttgcacga ggctggttat acaagggact catgggtgct tctgaatgac ttcatataga 60
tcctggacca ccctggtttgg aagatggagg tagaagtacc aattgacttag ttacacctgc 120
aatttcattt actataattc agatgtatct gtgtacaagg cagccgtgtt attctgtttt 180
gttgaattcg cgacactgca ttctccgtctt gttttttgtt aatctctt cttttccctt 240
cttttgcggcc cgttttatgt ctgtttgcgc ggcagggaca gaaacagaga aaccggcg 300
taatataagat aaaagcttcc agcttattca gaagatctt aatatgtat aattttaatc 360
tctcacaaac tgtgtatctt t 381

<210> 123

<211> 356

<212> DNA

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<213> Nicotiana tabacum

<220>
<223> plasmid g18-6-5

<400> 123
ttagagaaaa agagagagga aaatcgtaga aaaatcttca aaaaactgag ttgagtaaaa 60
tttcaaaaaaa ttttagttgt catttcttctt ctggctttc cttccagtc gatctttct 120
tcagaaaaaca aaaaaaaaaatg gttcaacttt agtttgagt ccagatttga tctcatttct 180
ttgcttagagt ttcgttgct gttatggct gggttttgc tttaccctgt gctgaacttc 240
tttcatctt atttctgctc tctaccagct atttcgagct ttatggta agtattctag 300
gtacacactt tcaaatactgt actgtttctt catgaaaagg gctgaaaatt ttgaat 356

<210> 124
<211> 293
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-7-5 ; Arabidopsis genomic homology

<400> 124
aagaaaaagt gcaccagggg cttgtccttg ttgtggagga aaagtacaag ctgttagatgt 60
agaaggccgt ttcagattt gctttctccc tatttgctt aggttcaaga ggaagtatct 120
ctgtactctc tgttctaagc gtttgggtt gtattcttga tctccctatt ttcctttgt 180
aatttctact ctcaatttt tgaacagcat cctataagtg taattattta tttgaaatag 240
tgtttgagag ttgttcattt gctcaagaat atatgaaact tttgttagtg tgc 293

<210> 125
<211> 259
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g18-8-7

<220>
<221> misc_feature
<222> (104)..(104)
<223> n can be any nucleotide

<400> 125
tgaagatgta gataaattgc tggaaagatat aggggatgat gttgggtctg atgatggta 60
cgatgaaaac tagaatgatg tttttttctt caagtaaatt tatntcatgt tatttcttgt 120
tagttttctt cttctccact cccctctgtt tttctgtggc gcatagggtt tacattgtaa 180
aaatttccca ataccaacat aatttaagga tgtaaaccat cttcttgctt tgcttgtat 240
ttctctacta gtttgcttt 259

<210> 126
<211> 491
<212> DNA
<213> Nicotiana tabacum

<220>

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<223> plasmid g19-1-5 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (485)..(485)

<223> n can be any nucleotide

<400> 126

ggtttaata agcttattgg tgggggttg ttcgagttt ttggttactt taggagaggc 60
aagtggtagg tggacgagtt ttggggttat attcaaattg gtatcgagg caggattgc 120
aactctgtta atgcttcaga gtcttgctgt gaacgtggg ttgtatatgt attgcaaggc 180
atatcgtggg gagctggcgt ttgagatcgc ggagaggtt gcgagtcagt atgtgtgtt 240
gcctttgtat aatgagaagg ttcctcatct tggttgtt gttcaagatt gaatgtgcct 300
aaggtcagt agattatgtt agatgtatgc agttatgtt ttgaagaagt agtgtttgt 360
tttactcgta gcatgtatat agtttcttgtt ttgttagata aatgattgaa gatgtgtgtt 420
acctgttgc aatgtgcattttatgtt aaaaaagctt aatacctgtt atgaaattcc 480
ctccnagt t 491

<210> 127

<211> 485

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-6

<220>

<221> misc_feature

<222> (467)..(467)

<223> n can be any nucleotide

<400> 127

taggaaatga ctttgcagg agttaaatca tataaatatt ttttggact gcaaataatg 60
ataatttttc ttttctaac caaagcaaaa taatatcatt tgtgaaattc agtcgggtgt 120
cctgaacatt attagattta aatggagaa atgagagaac acgtatggcc actagagata 180
ttaaagctac cttaaatatga caatagatga agcagaggac agtataatatt aattttcttt 240
taactataac atacattgcc ccctttatag atcaaagttt ttctactatt atttaattta 300
ttactataat aatcatctct ctctaggcgg ctagttgggat ctagtgcctaa cttgcaatatt 360
ttaattttgt tttcatgttg ttccttttc tggatgtatgt tttaactgtc gaaaaaattg 420
agagctaagt tgcattgttc tgagttcgaa ggattaaaag caatgttaat caattggctc 480
tatgc 485

<210> 128

<211> 484

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-7 ; Arabidopsis genomic homology

<400> 128

ggagggaaaga tcttaggaatt ttccgagtt tgaacaattc ttgggtgatc gtttctaccg 60
tcaatgaagg cagaaacagc ggtttgaat ccacctctca tctcttttga caacaagagg 120
gtatgtttatg gatttgctgt acgacctcag catgtacaaa gataccgtga atatgttaat 180
atctacaagg aagaagagga agagaggtct gataggtgga acgattttt ggagcgtcaa 240

gcagagttctg ctcagttacc cataaaatggg atatatgtca gacaaaatgtt tactaatcc 300
ggtgccaaac cattttgtca ggaggtaagt tgtgtatgcac agaacggggaa agaaggtaaa 360
cttggaaaatg caactgagaa ggatgtcata ctgacacctg tggagagggaa aatttgtca 420
acttcagatgt ggacggaaat tagaccctct ctacaggca gttggaggatat gatgaacact 480
cggt
484

<210> 129
<211> 224
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid q19-2-1

```
<400> 129
ttttttttt ttgggtggcg gagggaaagcg tggaaaaaa aagaaagaaa aaagagaacc 60
atagagttaa aggccagatc atgtctgcta tgagtcatca tctgttgg  gaagagaatt 120
cacttgttta atttacttc tcataattta tatcatggga tttcatgttg gatggatgga 180
ccagtatgtta tgtcaaatta attcttattt cggaaaaaaaa  aaaa 224
```

<210> 130
<211> 198
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid q19-2-9

```
<400> 130
ccagtgtaat tggactttgc gcaattgaga gacaagggggt tagaggtata tacgtgattg 60
aagatcgta tctatcttgt tatctctcat tttttgaga tttttcttctt cttcttttc 120
cccaaatctg taattgatga gattctagac agtgttagtg tataatcact agataatcta 180
tgtataatca gtttatcc 198
```

<210> 131
<211> 204
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g2-1-2 ; homology with 5-epi-aristolochene
synthase (sesquiterpene cyclase) [1]

```
<400> 131
ggactccatc gaagtttgag ctgccaattt gttgtcatct taaagaaaact tcatttcttc 60
gtgttgagaa agtagttata tatgtttttt taaatttgtat aattaaggttt ttaggaagct 120
ggttttgcga ttgtgcagtg gacttcttaa ctaggacctc cttgttaagaa gtaatcttc 180
agtgttatgtt attcaacttgc atttg 204
```

<210> 132
<211> 313
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-20 ; Arabidopsis genomic homology

<400> 132
tgcgagaaaat ttgtattaga gcaaaaaatg gtgcttgggt gattcgcgg 60
gtgacacgag ggaaggagct ctatatggta cttgagaaag ccaatgagac ccttccttat 120
gcctctgaag ctgtgaaaa gttcagtac aggtattgca gtggcgctt ttctttgtaa 180
gagggaaact agatttggt attgccgaga cacaggattc atacaagaata catagctaca 240
tatcttatgt tggtttaat tcaacttgt ttgtactgtt tataaataaa taaaaacttg 300
atccctccct ctt 313

<210> 133
<211> 315
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-29

<400> 133
ttgcaatgaa ctgtttaact aaggtggct ataaagaagg tttggaaact tcttatattt 60
agttgtttac gagacaaatt cgtgctttcc tggtttatca agaaaagaat tggtaactt 120
aatgaagcat gtctccacac tgatctatct attctgattt ccagtgtac agcttttg 180
gccattacag tggttatattt atgatcacta gcattatcat atcttagaaa gtaaacacgt 240
caagtcaatt gatccattca actgtacta tgctgaattt tacttatgga aaattcggaa 300
aatactatattt acttc 315

<210> 134
<211> 315
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-31

<400> 134
agaatatagc tactacaagg tggttctccc agtagatcaa ctcaaaggcca ttactccgtc 60
aactatgctg tcaagaattt gcaagggtgca ttgctgggtc atcattcgta gctagcgtgt 120
cattttcttg gtcatttcag atgaggtccg tgacactgggt gcttgcttt gtttagata 180
aaattctgtt aagtatgcac atctgggtga ttgattgttgc catacatgtt aatttatcag 240
cggttggta tcttggtac atctgtttcc tgaattttt attatctttt agtattactt 300
tggttggttc gattt 315

<210> 135
<211> 483
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g3-1-1 ; Arabidopsis genomic homology

<400> 135
attttgagac cagaaggaa gctcattgtc cgtgacaaag tggaaagctgt aaccgaatta 60

gaaagcatgt tcaagtctat gcattatgaa atccgtatga cctattcaaa ggacaaggaa 120
ggatttgtgt gtgtcagaa aacaatgtgg cgaccaacgg aggttgagac actaactaat 180
gcccttgctt agctgcttag cgtgtgtcg gatgctgggtt gtatatcatt cgagaggctt 240
tcatgccacg gtgactagat agttttcga ttaaattctt gttactgtat tcttgcagg 300
ctaccgtgtt ccattccata gaaaattag tgctattatc actatataatt tgtggaaagt 360
aagtttgtt atattatgtc attagttgtg gaggaggtgg acattcttgg aattgttaat 420
gccattgggtt taggacggtg gtaaaaattc aaaaacacca gaatgaaatt cgtttcaga 480
gct 483

<210> 136
<211> 553
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g3-1-4 ; homology with ADP-ribosylation factor

<400> 136
atagcaatga cagagaccgt gttgtggagg caagagatga attgcacagg atgttgaacg 60
aggatgagct tcgggatgct gtgctgctt tgtttctaa caaacaagat cttcctaattg 120
caatgaatgc tgctgaaata actgataagc ttggactcca ctctctcagg cagcgtcact 180
ggtacatcca gagcacttgt gcaacttctg gagagggact ttatgagggg cttgattggc 240
tttctaaaca tattgtaaac aaggcctaaa ccaacgtaga gttgttgcgg gttgatcctg 300
gatgcaggcg ggttttatac tagttcttt tcctttttt cccgaacatt cccagaatct 360
gtgtggttat gaatatccc taaaaagtat ttgctctt gtaggaccta ttgaaatgtt 420
tttgaataac agtgggttgg aatatgtat tttttttt gtttaaagta taatgtata 480
atttgtaaca gagatagat gtttgcgtt tcattggtaa atggtaatgg tataacttccc 540
ttttgttcc ttc 553

<210> 137
<211> 501
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-2-13 ; homology with ACC oxidase

<400> 137
gagctctggt aattaacatt ggcgtatgctc ttcaaataat gagcaatgga cgataacaaga 60
gtattgagca tcgaggattatg gctaattggca gtaataatag gatttctgtt ccaatttttg 120
tgaaccctaa gcctagtatgat gtaattggtc ctttggcaga agtgcttagag aatggagagg 180
aaccatattt caaacaagtt cttaactca gttatgtcaa gcatttctttt aggaaagctc 240
atgatgggaa agacactgtt gattttgcta aaatcaagta gaaatttagt gatctgctcg 300
aagaataaga agtgcqctta tattaagcta atgtatcccc ctttcatgtt ttttagtta 360
cgactactca gcaattttaaa aaaaaagaag agatagtctc atactgcataa gtataggaga 420
atattttgg gattaattag gtgttgcata tttgtaccgg ataaattata attgagctgc 480
tgatattatg gcaatttttag c 501

<210> 138
<211> 373
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-3-7 ; homology with ATP citrate lyase

<400> 138
aatatgtaga gatcggttac ctgaatggtc tgtttgtct ggcacgttct attggcttta 60
tcgggcacac atttgatcag aagagattga agcagcctct ataccgtcac ccatggaaag 120
atgttctcta caccaagtga agacgctccc aatagcagca cgccagaaagt cgccgtctc 180
ctatccagca ttttatcgaa aagtgttgtt tttagtcattt gttgtgatca ttcttcttgc 240
tttctgttag tattttgtac tcctaagaac ttgctaagca ttctgttaag ttgttataag 300
agacaactct tttagttca caccaagagt ttcccttaat tcctatatata caaagaaata 360
acacattcat tgt 373

<210> 139
<211> 301
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-4-4

<400> 139
gttggggaaa aaggcaaaaa gatgaagaaa aaggcaatgg aatggaaggg attgactgaa 60
gcatctgcta aagaacattc agggtcatct tatgtgaaca ttgagaaggt ggtcaatgat 120
attcttcttt cgtccaaaca ttaagttaaa taagttacta catcatttaa tcttccttaa 180
atttcattct ttgttcttg taagtcttt tcatacttat ttcccttctt acttcgttt 240
tgcattgtca cagtgttaagg ttggaagcaa ataatatatc ctgcttaatg tcgttggc 300
g 301

<210> 140
<211> 299
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-4-5

<400> 140
aggttataga tgaaagacca atggcttag taactgatgc tggtgcgaat gaagccaaag 60
ataaaaggctc aagctagaaa ttgcgttaat actgattttt ttgctgtctt cttaacatt 120
accatcacta actagttctc cattttctt actgggtat ttactttcaa gtattttatt 180
tgcattgtca cagtgttaagg ttggaagcaa ataatatatc ctgcttaatg tcgttggc 300
gcttggaaa tttgaggat tagatagaaa gcatcttctg atttaacttc aattatgtg 299

<210> 141
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-1 ; homology with a A. thaliana gene
homologous to MEI2 (meiotic regulator)

<400> 141
cagtggagga ctcgaaatgg aacctgatga tcaaaataat ttgcttaatg gtattgcaaa 60

cttaagcatg tcttatagtt atccaaatgg tgctgcaact gttgtcgggg aacaccata 120
tggagagcat ccgtcaagga cattattcg tgcggaaatatt aacagcaacg tagaggactc 180
agagttgaaa tcgcctttg aagttagtgc taacttacca gtttcttaa atttgctct 240
gttaattagc tatcctttt cgtacttcct ttattgcgt tgaaatgcct gtttctcatt 300
ttgttgtgc aagagatatt ttctttgga cgacttcata tgctgaaca ttgttc 356

<210> 142
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-4

<400> 142
gctgggtgatc aaggcttgg agatatcaaata gataaaatta tgataatgaa tttcaagaat 60
tccaatggcc agaatttgc aaagaattca gatttatgga atttggaga gtgaagaaga 120
ggaaaagatt ggaaaacatc tttattgatc acttctgca acaacaacga gtagaggctg 180
atttagaatt taaagttaa gagttttat aaatttagag ttaaatattt gtatataattt 240
aatgaattgt ttaatatata tacaatatcg tcaataggtt attataaaaa tgataagttt 300
ttgttagggag tgtaaaggaa aaagtttga aaaagaggag gatttggc 350

<210> 143
<211> 481
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-2-2 ; homology with P glycoprotein-MDRP
(ATP binding cassette protein)

<400> 143
gcgaggggcca tagtggaaaaa tccgaaaatc ctactattgg atgaggcgac gagcgcattg 60
gatgcagaat cagagagatt agttcaagat gcacttgacc gggtgatggt aaatcgatc 120
accgtggtgg tagcacatag attatcaacc attaaaggag cagatgtat tgctgtatgc 180
aaaaatggag tgatcgatggaa gaaaggaaat catgagactc ttatcaacat caaagatgg 240
tttatgcct ctttggtggc cctccacacg cgtgcttctt agttctactt tttttcatt 300
aagtaaattt tattcatttt aatttcgtta tcttttgac ttttgctgaa gaagagttt 360
tttaatagtg tactgcaact catataaagc atagtagatg agcattctc aattaccaaa 420
tgagagaagc aagtaaactt gcctccccga ctgacttga tgtgttctgg ttattaagtt 480
C 481

<210> 144
<211> 480
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-2-6

<400> 144
agcaggacta gtcaagggtgc atcttcacat tagaaatgct tttatataatg tttatcagcc 60
tattcggtag atgtgcataa aagtttttag gagcagatac aaccctggaa acctgtacag 120
cttcttacgt ccctttataa cctgtactat aagtaggtag gtggcgttgc 180

aagccaaaaaa aaatatacaa gtaagcttca ccatgctcca ttacttagaa actgtacagc 240
ttgtgattta ccaaatatgt ctacattagt cctaataattt ccttagatat acgtagccta 300
agtattaagt caaacctgag ttttcgaag ggaaactttt tgttagcaatt cccttgatgt 360
tgttgactaa cttctcagca gttgcaagtg aatttcattt attgtttgct atttcctgc 420
tgcgtatgtt ctctttaaa attgtaaaat gtttctgtt gttcacacc agcttcatcc 480

<210> 145
<211> 447
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-3-17

<400> 145
tggggacagc aaaacctcct tggttgtgcc agtgc当地 aactaaaca 60
ggaaacatgc tcaggaaag ctgaagatcg tagatgtctg aagttagtt tcccacgttt 120
tcactattt agcagagatc cagaaggaag aggaggaaaa gcgttctacc ttaagcagct 180
agtcgtgtt gatcgcat atttcattt tggttgggtt tttagatactt ctatgtacat 240
aaactatcaa ggtatttata tatgttcata tttggctt agctttcatt tcataatgcac 300
attcggctgtt gggctcctc tgtaaaataa tgagttctat atcattataa gcattaagct 360
tctctgttaa ttgtatcagt aatattaatc tcttcatttcc attagttcca tgactcaacc 420
atcagcaggtaataaagagt ttgtttc 447

<210> 146
<211> 450
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-3-4

<400> 146
cagtatagc aaatcaagta attttgaagg ggcagctgat ggttctcaca atgttgtca 60
gagatacaga gagaggggtc agggtcagtc aaagcgtgga ggtggaaatt tccatggtag 120
gcaagggtggc tctggccaa taaatgcca ttatgattga ttgtatgagga ggctaaaatg 180
tggatttagg tcttttagt ttgtatgga tagcaaactt accggataat ctttgcttag 240
tctgcatgtc tgggtgtgca gtcttaggtg gtatgtttt acgtggtaaa agagaattt 300
ttggccaatg tcacacgggtt gagctggact acagccgggt tttgcccacat ggtttggga 360
aaaattattt tgtttgtgc aacagtaagt gcggcattat gagaactgta attaatttga 420
agaacattaa aatagggcc cattttctcc 450

<210> 147
<211> 335
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-5-5

<400> 147
gaaaacacag aggcaagat gatggtgacg aggagattga cagatacttggagttaaa 60
acgggaaact atcaggaaatg ctatcaaaga agccaaagag aaaatgagga atatataattt 120
aagcttattt agtccaattt tgacttaattt gaggaatattt ataattaagc tatgttagtt 180

caatttgaa cttaattagt tctttcatta ttcccttgggt ggctgttaatt tgacatttct 240
 gcaattctgc tggatggtt ttgatcttag ggactctatt attttcattt tcttggtaag 300
 atccttgccct cctaattccta atatacgt gcacc 335

<210> 148
 <211> 245
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-6-1 ; homology with LOX lipoxygenase

<400> 148
 gtgaaaatgg acttactgga aaaggaattc ccaatagtgt ctcaatttga ggttctacag 60
 cacgaatagc tgatatatacg ctttgcagt cctcgtaac ctgcagaaat catccgcaac 120
 ttaaggcaga gtggcaacag atgtgttagt atctattttt atgtcaatat ttgttttagcc 180
 aaattccatt attgttagtg tgtgtttta caataaaatc aatgagcaa tcccctcatt 240
 ttccc 245

<210> 149
 <211> 353
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t12-1-7

<220>
 <221> misc_feature
 <222> (141)..(141)
 <223> n can be any nucleotide

<400> 149
 gcattgcggc gcctatccaa agatcctcg ttttagatcaa gcatgagtgta cattgttaaa 60
 gaactagagc aactttatca acaatctaaa gatgcaggta atactcgcaag ccacggtaac 120
 aaccggcccta gaccacgttag ncgaagtgc ggtgatgtt gtaataaaca tacttcagtt 180
 gcttatccaa gaccgtctgc ttctccccctt tatgtctaaat aattcaataaa atgatatgat 240
 gccttttcat gttttgcctt tatgttttc aagctgaaga acctgcacat ttgcagaatc 300
 agctgattgt acagttgttt tggtaatgtt attggatgtg tttgttaacct tga 353

<210> 150
 <211> 351
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t12-2-1 ; homology with chitinase class 4

<220>
 <221> misc_feature
 <222> (31)..(349)
 <223> n can be any nucleotide

<400> 150

gtaatataat cgtatattct tttaaaata naatcatgt a tagtgaggc tnatgcaatt 60
ctcanaacat atatatgtcg ncctcaactac cgggggagca actaatantg aatatctnng 120
gttatnctt gattcaactn ctggnnatna cttacgtcct aacatgttag attatcccc 180
gtctccagac ccagtnntg acganactca gtataact cagccctcn ggcaacagtc 240
tgaaggtgga nctccgnac atncnatctg gccattaatg gctcaaatgg ttgggccaag 300
accttggna naagntgatg aaagaatggg ngnttggtna gnncgatanc a 351

<210> 151
<211> 352
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t12-2-18

<220>
<221> misc_feature
<222> (30)..(347)
<223> n can be any nucleotide

<400> 151
gaatagtga acttattttt caaatggcan aaatggactg acttaacttc tgtacatnag 60
ctataaaagat gataatcaga gtgcctnctg catntcatcc tcttcttgg a ntgcaagaa 120
ctggaaagccc ttcattgtat tggagtgtaa acgtggtnct ataagttant tctttcgtgt 180
cgtctgatag tttgaacctg ananatgaa gaagagctan tggnnnaagat ctncatgngt 240
caataaanga gatctngcc taaaacanatt cgngacnag cgtaaatgn taggaaatgt 300
gaatggtaac gctggnctgg aagaagancc nntccngnca agncaanctt tc 352

<210> 152
<211> 424
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-2-5 ; homology with basic PRB-1b [I]

<400> 152
gttcgatgca acaatgggtg gtatTTATA acatgcaatt atgatccacc tggtaattgg 60
agaggacaac gtcctacggt gatcttgaag agcaacatcc ctttattcc aagtggAAC 120
ttccaactga tgtcttagtaa taacggTTA cgtgatcaaa taatgaataa aagcttGTC 180
atgtgttaag gaaaattaaa taaaataccag tactatgcta tgtgatgtt a ctttttacc 240
cagtggataa taatccaatg gtgttagcaag gggtggattt actgttatct acttggTTTA 300
catttggTTT tgggtgtt atggaggtgt gtataatgtat gtgtttgtat gaataaacaa 360
agtgaacaag gtgatgagtc aacagcgatg taaattgtt ctttgattaa tataattact 420
tact 424

<210> 153
<211> 277
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-3-2

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<220>
<221> misc_feature
<222> (40)..(265)
<223> n can be any nucleotide

<400> 153
ttcaaagtt tcgttgcctt accaaccacc ggtggatgtn gtcctccng cccacaagtn 60
aacctgatat cttnntgaaa tcctnttagta ctagaaaaat ataangtagt attagtttn 120
cattcttca atgtgtgcag ttacatccct atctttggg aggatacatc atcctcgnc 180
tcattggact tgaagtagcca ccttaatcng taaccacaat ttttnaactt taaataat 240
caaatttata atgacaaaata tggtncttcc ccacttc 277

<210> 154
<211> 366
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-3-6 ; homology with chloroplast RNA
      binding protein

<220>
<221> misc_feature
<222> (43)..(43)
<223> n can be any nucleotide

<400> 154
gtactatata atggtagagac tgggagatct cgtggctatg gtntttgtga gctatgagaa 60
tagagaacaa ttggagaatg cccttcaaaa tcttaatgga gtggaactgg atggaaggc 120
aatgcgcatt agcttagcac aaggaaagaa acaataagat ggacaagatt cttgttatatt 180
agttgtaaaaa gttgaaaatt taccatcaat agaagaacaa tggtttattc atggattaag 240
atggctaaag gcttttaact aggacaaagg gagatgtacc atttgaatta catttccat 300
agttgagct ttctatctt gtttcttac tgccttcat aatttagaga tatcattgtt 360
ccttcc 366

<210> 155
<211> 282
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t18-4-18 ; homology with AGP-b (ADP-G
      pyrophosphorylase, small sub.)

<220>
<221> misc_feature
<222> (47)..(265)
<223> n can be any nucleotide

<400> 155
gtaatcaccc gtttttattt taaacgaata atttttacag tacctantct nctcttgtag 60
ggtaatgag aantatctag ctacataaaa gtnggatgtg cgctanattt ctacaggnaa 120
agcaaaaatna aagttagaana tttctaccgc atggctgttn acccaagatt tgggaggaca 180
accaagtncc aangcctncc ttcanatgtat aatgccactg ggaatcaatg ngtccttgat 240
nacngtganatcccttcc agannaagta tccatctgtt tc 282

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<210> 156
<211> 376
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t2-1-1 ; homology with ubiquitin
conjugating enzyme

<400> 156
accagaaaatt gctcacatgt acaagaccga caggtccaaa tacgagacca ctgctcgtag 60
ctggacttag aaatatgcta tggataatg gcaaaggcgt caccaggcat gtctgagact 120
ttgttaacagc aatgtcttat tgtgctgggt gtgaatgaat aaattcggcg aaagaactta 180
gtttacttct taatctccct taaagtgggt tgtcaagaga catgtcttt caatttgta 240
atatctattt gatgactatt agtaagggag aaacctcatg taatttact ttgtttgcca 300
gtttacctga gcctttctct agttttcca atttgccctgg cttgtttgggt tctgcgttca 360
aagttggat tgattc 376

<210> 157
<211> 364
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t2-1-3 ; chloroplast genome [I] homology

<220>
<221> misc_feature
<222> (3)..(257)
<223> n can be any nucleotide

<400> 157
gnnnnncaat ngnnatcgna cnagnnnncn gnannannan tccaaagctn tcnaatntc 60
tccattactt gtgtggataa gcccnatatn atagagtata taacttcgtat catagggatc 120
aatttctagt cgcatagctt cataataatt ctgcaaagct tccgcgctaa ttcccttcgg 180
atctgagccg acatcccattc tctgtatag gtaaatgcct cttttctcc tgaagttgtc 240
gaaattactc gtaatangat attggctaca attgaaaagg tcttatcaat aaaatttcca 300
tttatccgtg atctaggcat aggttagcaat ccattctaga attcttctca ttacctctca 360
tggg 364

<210> 158
<211> 184
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t2-6-3

<400> 158
gagatcgta tacatgaaat ggtatatacg aggacatagt ttccctttagg gaaatgtcaa 60
taggttagag aagaatggtt aaaccgcggg cccgacgggtt taatttaggtt attatataat 120
taggtttatc ttttgacttg tatgttatta gctagtaata atatacttat tcaattttgt 180
gcc 184

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<210> 159
<211> 534
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-1-12 ; homology with SNF-1like kinase,
      calcineurin B-like calcium sensors interacting
      protein in Arabidopsis

<400> 159
ccagattaag cttcaggggg agaagaccgg gcgc当地 catttatccg ttgcaaccga 60
gatttacgag gtggcacctt cactatacat ggttgcttcg caaggctgga ggagataacct 120
tgaatttca caagtttac aagaacctgt ctaccggatt gaaagacatt gtttggcaac 180
tgggggaagg aggagaggaa gtaaaagatg gtcttgtcgc agcttgattt tggagtgtga 240
agtca gtttgcgtt ttgccaatgt gaataactct gcaa acagtg tgcttagat tagataatgc 300
tgc当地 ttaaaacttt ttataatcag ttgatgtcaa acagagtgtt taagcatcaa 360
cgagtttata atacattgtt ttatgtacga ttaaggcacg taaacttaga aaaattaaga 420
ctggtttac attgccattt ttgtcttatt tggacaag atattacgga tcaatacccc 480
ccccaaaata tgtgcttttta ttgactgga agtggtaaca aagtgtgttata 534

<210> 160
<211> 398
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-2-4 ; homology with a multi-functional
      protein -beta oxidation

<220>
<221> misc_feature
<222> (36)..(354)
<223> n can be any nucleotide

<400> 160
cctcagaaac gcaatggagg tgc当地 tggggntgat acaattggat ctgaatacat 60
atactcaaag ctaaaaactt ggc当地 gagggc ctatggat tttataagc catcaacatt 120
tttggagcag agagctgcaa aaggattgcc cttgggagga tcgtgttgcg ctgc当地 atca 180
tatgatcata tcctgc当地 agaaggc当地 attcaagcat gctgaacttg tgntcggaaa 240
taaggcgggn aagtttgc当地 attacaatta gttagnagtt cc当地 attaatta taataattc 300
ctat ttttcc cctcaagtt atttgc当地 ggtt agtggtaact ttggctctac aaantagtgt 360
aatcgtccga gaaagagaat gaaatgtcca aacgccc当地 398

<210> 161
<211> 398
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-4-7 ; homology with GST (bronze-2
      protein homologue)

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<400> 161
atggggttgc tagatatcat gtcatttac acactagggg catacaaagc acaagagcta 60
gtgtttggtg taaaaatatt ggatgcagag aagacacccc tcttatactc atggttgact 120
agttaattt agctgcctat agttaaggaa atcactcccc cttatgacaa ggtgccttca 180
tttcttcatt ttctcaaaga catcgcttc aaagctccgg ccaattgacc tttttgtgt 240
ttatgtccat ctctgtctct tttgtctact ccactcatta attgtactca atgtcttctc 300
ctctgtattt tataatataa taaggcttat ggccatttgg attccaaagg ctacttatat 360
tttgagtgtg tgtttatac aacagaaaat tatcatcc 398

<210> 162
<211> 397
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-4-8

<220>
<221> misc_feature
<222> (207)..(351)
<223> n can be any nucleotide

<400> 162
ccatgagaat gacgaaaagca aggccggaaaaaa gaaaggagaa catgataaga agaatttgat 60
gaagaagggtt gctggggaaaaaa tagggaaaaaa attattgtat agtcatccta agaagcagca 120
tgaggaaggc tatgaaggag aagaggagaa agaaggagaa gaaggagaag aagtagaagg 180
agaagaagta gaagtagaag aagcgggnaga aggtgggtttt gaatttgaac tcnacttga 240
tttttggatta agctttatgtt atcaactccag ctgtgtacgt tggattttct ccttatttgg 300
ttaaaaanac ataagtatgtt ttcgaggata tctctgaata ggtggcttgg natttgaac 360
ctgtggtacc atatatatga gcgtcttcta gttttt 397

<210> 163
<211> 304
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-5-4

<400> 163
acgaatgtgt ttagtactcg gggcaactcc aagtcttgag atccaagtgt tgcaagcctct 60
ttagccttta aaagggtggat gctgccattt taacctgggtt ttagtttga tgaatttga 120
attcaaaagct tttgtttgtt gcttaggttc ctgtttagt tttcagttga aatagtttg 180
tactcttca tctttgagca atgaaataaaa agtcctcaaa tctgcttctt tttagaactaa 240
aaaagatctc ttatatttcc ccctgtaaaaa tcttgcaatt gattatcaac cgtcctctct 300
tatt 304

<210> 164
<211> 307
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-5-5 ; Arabidopsis genomic homology

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<400> 164
gagctgataa atggaaaagc agcagtaatt ggttcctat tgctgttga ttttgaactc 60
ttgaccggta aaggctttct caaaggaaca gggttcttgg atttcattta ctcagttca 120
gatgcttca aataaaacca ttccgctata tacttactcc ccctccctt ttttcccctt 180
ttcctatTTT tctgacaaat ttgcatttg ttaaataaac aaaaacaaag aatgttgc 240
tttttatatg ttgtccaatt atatggatta gtgaattata gaccattgaa ttccagctga 300
agaatgt 307

<210> 165
<211> 192
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<213> Nicotiana tabacum

<220>
<223> plasmid t7-6-4

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tttacggta aaagtagaag ctggtataag ccatcaatgg aaaaactggta taattcgatc 120
ttatataaat ttcctaattgt attgagacta atatatacag tcggattttt aggtttggc 180
cgaccggatt ac 192

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<211> 232
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a1-1-17

<220>
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<222> (71)..(176)
<223> n can be any nucleotide

<400> 166
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tgggtttat nggtgtctcc cttttgtatt tgaagtttc ccagaaaatt agcaaagaat 120
aagcttcaaa ctggttttac attttnggtt caaaatgtca natcaaanaa tctgtnatgc 180
tattgggtttt gtatgtataa attagatccc atttttttcc tctttccctt at 232

<210> 167
<211> 489
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-1-14

<400> 167
ccctcagaac gcaagtagca acagtttctt caattgctat tgcctatctc tgaactcgaa 60
ttcattactt gtaagatctg ctaataatca ctatgtttt ctgcagtggaa ggtgtcatgt 120
tttgggctga tacaattggaa tctgaataaca tataactcaaaa gctaaaaact tggcatgagg 180

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cctatggta tttctataag ccatcaacat ttttgagca gagagctgca aaaggattgc 240
 cttggagg atcgtgtga gctgcatatc atatgatcat atccttcag aagaagcgt 300
 aattcaagca tgctgaactt gtgctcgaa ataaggcggg aaagtttgg aattacaatt 360
 agttagaagt tccattaatt ataataattt cctatcccc cccctcaagt tatttgatgg 420
 tagtgtaactt ttggctcta caaactatgtg taatcgccg agaaagagaa tgaaatgtcc 480
 aaacgcttc 489

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 <212> DNA
 <213> Nicotiana tabacum

<220>
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 <222> (31)..(588)

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 1 5

cca aat tac tct tca tcg tct gat cag ttg tca gta atg aat atg 102
 Pro Asn Tyr Ser Ser Ser Ser Asp Gln Leu Ser Val Met Asn Met
 10 15 20

atg aac aac aat tct caa gca aaa aca act gaa tta acc caa gac aat 150
 Met Asn Asn Asn Ser Gln Ala Lys Thr Thr Glu Leu Thr Gln Asp Asn
 25 30 35 40

aag aaa tcg agc ggg ttt ttg ggg cta atg gca agc atg gaa gct cct 198
 Lys Lys Ser Ser Gly Phe Leu Gly Leu Met Ala Ser Met Glu Ala Pro
 45 50 55

agc tcc agt gtt gtt act gat cac cca aat agc att ccg tat aac cct 246
 Ser Ser Ser Val Val Thr Asp His Pro Asn Ser Ile Pro Tyr Asn Pro
 60 65 70

aat gat cag aac gag gtg aga tcg ggt aag aag aat aaa gtt gag aag 294
 Asn Asp Gln Asn Glu Val Arg Ser Gly Lys Lys Asn Lys Val Glu Lys
 75 80 85

aag att aaa aaa ccg aga tat gct ttt caa aca agg agt caa gtg gat 342
 Lys Ile Lys Lys Pro Arg Tyr Ala Phe Gln Thr Arg Ser Gln Val Asp
 90 95 100

att ttg gat gat ggt tat aga tgg agg aaa tac gga cag aag gct gtc 390
 Ile Leu Asp Asp Gly Tyr Arg Trp Arg Lys Tyr Gly Gln Lys Ala Val
 105 110 115 120

aag aac aac aga ttc cca aga agc tac tac cga tgc acg cat caa gga 438
 Lys Asn Asn Arg Phe Pro Arg Ser Tyr Tyr Arg Cys Thr His Gln Gly
 125 130 135

tgt aac gtg aag aaa caa gta caa agg ctg tca aag gat gaa gga gta 486
 Cys Asn Val Lys Lys Gln Val Gln Arg Leu Ser Lys Asp Glu Gly Val
 140 145 150

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gta gta act act tat gaa ggc atg cat tca cat ccc att gag aag tcc 534
Val Val Thr Thr Tyr Tyr Glu Gly Met His Ser His Pro Ile Glu Lys Ser
155          160          165

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aca gat aac ttt gag cac att ttg act cag atg caa atc tat gct tcc 582
Thr Asp Asn Phe Glu His Ile Leu Thr Gln Met Gln Ile Tyr Ala Ser
170 175 180

ttt tga aacgtccatc acttcaatgc ctaaggcatg acactcaatt agtcacttgt 638
Phe
185

aaaatagtac tacagtatat tgtgtacatg cgtttgaac ctagatgcta tattttgaaa 698
taaaacgcaa cttcattagg gaatttaatt tgatcattgt acaactaaaa gtaatgtgc 758
tatTTTTTg ttttatcac ttgttttg ccggagccat gctcttcatt ttaactctt 818
tcttttagaa ttaacaata atttcatgtt ggagaaagat acgtgccaaa aaaaaaaaaa 877

<210> 169
<211> 185
<212> PRT
<213> Nicotiana tabacum

<400> 169
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 1 5 10 15
 Asp Gln Leu Ser Val Met Asn Met Met Asn Asn Asn Ser Gln Ala Lys
 20 25 30
 Thr Thr Glu Leu Thr Gln Asp Asn Lys Lys Ser Ser Gly Phe Leu Gly
 35 40 45
 Leu Met Ala Ser Met Glu Ala Pro Ser Ser Ser Val Val Thr Asp His
 50 55 60
 Pro Asn Ser Ile Pro Tyr Asn Pro Asn Asp Gln Asn Glu Val Arg Ser
 65 70 75 80
 Gly Lys Lys Asn Lys Val Glu Lys Lys Ile Lys Lys Pro Arg Tyr Ala
 85 90 95
 Phe Gln Thr Arg Ser Gln Val Asp Ile Leu Asp Asp Gly Tyr Arg Trp
 100 105 110
 Arg Lys Tyr Gly Gln Lys Ala Val Lys Asn Asn Arg Phe Pro Arg Ser
 115 120 125
 Tyr Tyr Arg Cys Thr His Gln Gly Cys Asn Val Lys Lys Gln Val Gln
 130 135 140
 Arg Leu Ser Lys Asp Glu Gly Val Val Val Thr Thr Tyr Glu Gly Met
 145 150 155 160
 His Ser His Pro Ile Glu Lys Ser Thr Asp Asn Phe Glu His Ile Leu
 165 170 175
 Thr Gln Met Gln Ile Tyr Ala Ser Phe
 180 185

<210> 170
<211> 21

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
26

<400> 170
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<210> 171
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
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<400> 171
ctcagatcta gaagttcatt tactttgatg 30

<210> 172
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
29

<400> 172
attgaagatc tagacgttcc aactcgaggc 30

<210> 173
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
30

<400> 173
ccctcgagcc accgtactcg tcaat 25